An Address
ON
PULSATING EXOPHTHALMOS:
A PLEA FOR EARLY LIGATURE.

Delivered before the Liverpool Medical Institution on Dec. 7th, 1893,

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WITH AN ACCOUNT OF AN OPERATION BY
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GENTLEMEN,—The patient whose case I now bring before you was sent to me by Mr. Oldershaw of Walton on Sept. 18th, 1893, with the following history. She is aged forty-two years, and is of stout build and muscular; her complexion is dark and of a somewhat dusky, venous tinge. She has had nine children, of whom the youngest is five years old. She has always had good health. On Saturday, Aug. 19th, about 10.40 P.M., being in a strange house, she in going from one room to another—they being, as she thought, on the same level—fell into a deep cellar, access to which was by a step-ladder. She was found lying against the steps, head downwards and unconscious. She was carried up into the open air, and on her becoming conscious some vinegar-and-water was given her. This caused vomiting. She was then able, with assistance, to walk home, a distance of about three-quarters of a mile. The only apparent injury was a scalp wound, one inch and a half long, on the left side of the occipital protuberance. On the 21st she complained that her right eye was tender, and that she was troubled by a noise in the neighbourhood of the right ear. On the 23rd she noticed that the eye looked larger than the left one, and that the lids were somewhat swollen. Mr. Oldershaw saw her for the first time on the 24th, and found matters as above described, the sight being as yet quite good. He gave a lotion for the scalp wound and an aperient mixture. On the 26th the murmur had increased, and there was some œdema of the conjunctiva, and on the 28th there was further advance of these symptoms, the lids also being more swollen. On the 30th there was distinct protrusion of the eye. On Sept. 1st she could not raise the upper lid, but the sight was still good, and on the 3rd, when Mr. Oldershaw was temporarily absent, no noticeable change had taken place. The treatment was by iodide and bromide of potassium, antifebrin, leeches and a blister to the temple. On the 17th, however, when Mr. Oldershaw returned, he found all the symptoms greatly changed for the worse, the sight being reduced to perception of light, and there being so much pain in the head as to render her almost sleepless. He had repeatedly urged her to see me, but she could not make up her mind to do so before Monday, Sept. 18th. When I saw her the diagnosis was simple enough. The fall; the scar on the left side of the occiput; the gradual venous congestion and the protrusion of the eye—now very great; the pulsation of the globe and of the orbital veins; and the characteristic murmur heard all over the head, but especially in the right temporal region, all pointed to post-ocular aneurysm, either intraorbital or intracranial. The disease was so advanced that the level of the lids was much beyond that of the nose; the lids were swollen and their veins were much enlarged; between them there protruded a thick pad of chemosed conjunctiva, and on opening them the whole globe was seen to be intensely engorged, the episcleral veins especially standing out, large, dark, and tortuous. The cornea was clear, but there was no perception of light. Several times during the progress of the case we imagined that there was such perception, but I think that we were mistaken. At all events there is none now. The eye was quite fixed and the upper lid could not be raised by the levator muscle. Pressure on the right common carotid artery stopped the murmur both to the patient and to the observer. As I had no doubt of the case being aneurysmal, and taking it to be an aneurysm of the carotid artery in the cavernous sinus, I believed the proper course to adopt was to tie the common carotid artery and sought the aid of my colleague, Mr. Puzey, for that purpose. He saw the case with me on Tuesday, and, agreeing as to the diagnosis and treatment, he at my request tied the artery on the next day.

Report by Mr. PUZEY.—"The patient was very stout weighing about 16st., which rendered the mapping out of the line of incision more difficult than usual, and she did not look a good subject for an anæsthetic. The A.C.E. mixture was at first tried, but the patient's countenance soon showed by its dusky hue that ether could not be borne. Chloroform was then very cautiously administered and was taken well. The operation was performed in the usual manner, except that the thickness of the woman's neck, and the depth at which the vessels lay, necessitated an extra long incision, and numerous distended veins were tied and divided between two ligatures. The common carotid artery, which appeared to be rather too large and too yellow, was tied with thick (No. 4) chromicised catgut ligature, and all pulsation and bruit in and around the orbital swelling ceased at once. The whole of the wound was then thoroughly dusted over with powdered iodoform and boracic acid and closed with fine silver sutures, except at the lower end, in which a small-calibre drainage-tube was laid, not reaching as deep as the artery, but deep enough to prevent any collection beneath the deep fasciæ. A small quantity of gauze soaked in glycerine of carbolic acid, and a thick roll of salicylic wool, fixed securely with muslin bandages, completed the dressing. It need hardly be stated that during the twenty-four hours which had elapsed between the consultation and the operation full measures for the purifying and antisepticising of the patient's skin had been taken. On her recovery from the anæsthetic she expressed her pleasure at being free from the distressing pain and noise which had so long tormented her, and at the general relief to her head which the operation had afforded. The progress of the case was uneventful; the highest temperature recorded was 99·4° F. and was generally normal or subnormal. The dressing was changed forty-eight hours after the operation (Sept. 22nd); there had been a moderate amount of sanious discharge, and the drainage-tube was shortened. Two days later (Sept. 24th) the dressings were again changed and the drainage-tube was removed. There was never any suppuration, and the wound was firmly united at the end of the first week in October."

Cases like this are rare, and when the first case came to me at St. Paul's Hospital on June 6th, 1878, I had neither seen nor heard of one. Accordingly, when a woman aged thirty-three, with symptoms as regards protrusion, engorgement, and murmur almost identical with those described in the foregoing case—I did not notice pulsation, but I have no doubt that it was present—presented herself at St. Paul's Hospital I was much puzzled, and dwelt on the case a good deal, asking many questions and, I fear, alarming her thereby. Wishing to examine her at leisure, I told her to wait until I had finished my other work; but when I had done so she had disappeared. She afterwards said she was frightened, because she was informed that I should remove her eye. However, I had obtained this history, that on May 6th she was struck on the left ear by a man's left fist, and on the 20th her eyelids were swollen, and on June 6th the globe was thrust out and the lower lid was everted. She did not return till July 19th, when I found the eye lying on the cheek, the cornea opaque, through the lids being unable to cover it. She stated that since her last visit she had been an inmate of a general hospital and had had many consultations held over her. As the upshot of these threatened her with a fate even worse than the removal of the eye, she ran away and came back to me. She had been ordered to be photographed. No wonder that she resented this, for by this time her appearance was hideous indeed. Although I had not expected to see her again, I had thought much over the case and had come to the conclusion that there was an aneurysm of the carotid artery just as it emerges from the petrous bone, and following the usual method in the treatment of aneurysm in other parts of the body, I tied the common carotid artery on the 23rd. The distress and noise in the head stopped at once, but the other symptoms yielded very slowly; the sight, however, which was reduced to a mere perception when the vessel was tied, was in three weeks $\frac{1}{4}$, and afterwards became normal. She was shown here on Nov. 7th, 1878, 107 days after the operation, with the eye still protruded and the veins engorged, and even five years afterwards there was still a trace of both these conditions. The recovery of sight after so severe and so long continuing disease was marvellous.

The next case came under my care on Aug. 2nd, 1886, being that of a boy aged fifteen. The symptoms were much less marked than in the last case and might have passed for

those of a catarrh, especially as at first he denied having had a blow or a fall. There was no protrusion of the globe at this time. But soon afterwards his parents informed me that in the preceding February he had fallen down twelve stone steps, his forehead striking the floor or a step with such force as to cut the skin to the bone and to cause insensibility for three days. On awaking he had complained of a swishing noise in his right ear, which had never ceased. A few days after I obtained this history the left eye became similarly congested, but to a less degree. This soon disappeared, however, and at the same time protrusion of the right eye took place and rendered the diagnosis of post-ocular aneurysm complete—at least in my opinion. I therefore proposed ligature of the carotid artery, but as the parents objected, I tried pressure by means of a weight on the vessel in the neck, but he soon tired of this and as I had little faith in his ability to stand pressure long enough to cure the disease I again urged ligature, but the parents, fearing the operation, refused their assent and took the boy to London, where he was seen by several surgeons, who, to my intense surprise, forbade the operation, on the ground that the disease was not aneurysm, but a rupture of the carotid artery into the cavernous sinus, and therefore unlikely to be cured by ligature. So he was let alone, the protrusion increasing but slowly, if at all latterly, until Jan. 20th, 1887, eleven months after the injury, when, going to a theatre, he got into a crush, and was much alarmed and almost fainted. On going home he could not eat, passed a restless night, and was sick and purged; his parents noticed on the next day that his eye was more protruded and engorged than ever. He was dimly aware that a change had taken place in his head, but he did not discover until midnight of the 22nd that the murmur had stopped. I saw him on the 23rd and confirmed these statements as to the greater proptosis and the cessation of the pulsation. Elsewhere[1] I have given the case in full and entered into an elaborate argument that the method of cure, most likely by the displacement of a piece of clot which was enabled to act as a valve, allowing the admission of blood into the sac, but preventing its emission, proved conclusively that the disease was aneurysm and not mere varix, and that the proposal to tie the carotid artery was justifiable. One of the surgeons who forbade ligature acknowledged, after the disease was cured, that there might have been a small aneurysm in the first instance, but that it had burst into the sinus. If so, the propriety of ligature was unquestionable. I have given reasons for rejecting this theory, but the admission is enough for my argument—namely, that the artery should have been tied.

The next case seen by me was one in the Northern Hospital under the care of Mr. Puzey, who published it in THE LANCET.[2] It had a history similar to that of the patient here to-night, except that the development of the symptoms was much slower, sight being lost some time between the fifth and fourteenth month after the injury, during which time he was not under observation. Before this, during the first four months, digital pressure was tried, but without success; but after ligature there was the same result as in the first case.

I will briefly mention two more cases, as to my mind they are very instructive. One is narrated by Mr. Rivington.[3] A man aged twenty-four was caught by a step of an engine on the right side of the head on July 8th, 1873. Besides symptoms which I need not mention, pulsation of the left eye and a murmur over the temporal fossa were observed on Aug. 23rd. On Sept. 3rd digital pressure was begun by six dressers, at first without, then with, an anæsthetic—viz., ether; then, as this made him very ill, without it again. The result was production of hoarseness and diminution of bruit. At the end of the month the propriety of ligature was discussed and negatived. Soon afterwards, it is stated, there was no pulsation of the globe; it had only lasted a few days. This is somewhat difficult to understand. Digital and other pressures were employed, and green hellebore was given for three weeks; then electrolysis—I suppose, of the distended orbital vein—was used twice, but it "did not appear to be a suitable remedy for the form of aneurysm." This is not difficult to understand. Thereupon injection of perchloride of iron was performed on July 11th, 1874, 368 days after the injury, with the effect of causing a small coagulum in the anterior part of the vein, sick headache, and vomiting during that day and the next. On this day "the swelling had increased and seemed to have reached its culminating point." Acute cellulitis of the orbit set in and became so alarming that on the 15th—*after the propriety of a second injection had been considered*—the carotid artery was tied, and, as a matter of course, things straightway began to mend. The failure of the perchloride of iron to cure is said to have been due to the fact that only five minims were injected instead of fifteen, but this hardly tallies with the fact that the lesser quantity seems to have started panophthalmitis.

A case under the care of Dr. Dempsey[4] of Belfast was published some years ago. A woman aged twenty-two, thin and fair, was confined on Nov. 3rd, 1885, slept a few hours, and woke up with a slight noise and singing in her head, together with headache. She had a steak for breakfast, was sick, and felt "a sudden rush of something coming up from the left side of her neck and head and settling in her eye with a snap." The usual symptoms of post-ocular aneurysm followed, and in two months vision was lost. She was treated by low diet, bed, iodide of potassium, and digital compression; then, a month after the beginning of the treatment, there was a sudden exacerbation. Seventeen days afterwards the carotid artery was tied with a silk ligature. A few days before the operation she had a beating pain in the right ovarian region, which disappeared with a profuse metrorrhagia lasting for six days. On the fifth day after the operation there was some pus at the points of exit of the ligature and drainage-tube; on the sixth day the temperature was 102° F., the pulse was 126, and there was vomiting; on the twentieth day there was profuse secondary hæmorrhage. This was stopped, but obstinate vomiting and hiccough set in, and the proptosis increased greatly. On the thirty-ninth day there was profuse hæmorrhage from the cornea and in the evening from the neck also, and on the forty-first day she died, blood coming from the cornea up to the last. At the necropsy it was found that the carotid artery in the cavernous sinus was converted into a fusiform aneurysm between half an inch and three-quarters of an inch in diameter, slightly sacculated on the side next to the body of the sphenoid, and extending from the entrance of the vessel to the anterior clinoid process. The ophthalmic artery was four times the size of its fellow and had on its upper part an immense saccular aneurysm which could hold a mandarin orange. This had opened in front into the eye. There was no communication between the carotid artery and the cavernous sinus. Dr. Dempsey thinks that digital pressure was persisted in too long and caused too free collateral circulation. I think this is a very just observation and would go further and say that digital pressure ought not to be employed at all, except for purposes of diagnosis. In this case I believe that the injury to the vessel consequent on the long-continued pressure had a good deal to do with the secondary hæmorrhage, though no doubt the unhealthy condition of the patient and the position of the ligature just below the bifurcation of the artery and close to the origin of the superior thyroid were the chief causes. Surely, the lesson to be deduced from the history of this case is: do not depress your patient by allowing the torment of the disease to go on for weeks or months; by low diet; by iodide of potassium; or by worrying him with digital pressure, with the additional disadvantage of damaging the artery; and, finally, take care where you put your ligature.

There is no doubt that the conditions in these cases varied greatly. In my first case, aged thirty-three, though the eye was thrust from between the lids, though the lymph channels were so obstructed as to render the circumvascular spaces visible, and though the cornea at the time of operation, seventy-eight days after the injury, was quite opaque, yet sight was completely restored. In my second case, aged fifteen, sight appeared to be almost unaffected, though the disease had lasted between eleven and twelve months. In Mr. Puzey's case, aged thirty-seven, sight was lost some time between five and fourteen months after the injury, and in the present case, aged forty-two, there was no perception of light when I first saw her, forty days after the injury, though Mr. Oldershaw notes that she had it faintly the day before. As to the production of blindness, I believe it to be due in most cases to lateral pressure on the nerve and not to longitudinal stretching. In my first case, where the nerve was stretched, one would think almost to breaking, seeing

[1] Transactions of the Ophthalmological Society, 1887.
[2] THE LANCET, Feb. 14th, 1891.
[3] Transactions of the Royal Medical and Chirurgical Society, 1875.
[4] Brit. Med. Jour., Sept. 18th, 1886.

that the eye lay on the cheek perfect sight was restored. In the present case I think that lateral pressure must be the cause, as, although the media are not quite clear, the eye being glaucomatous, the disc can be made out as a round, white patch with a faint red streak up and down it. About a month after ligature I could see some of the vessels resembling red hairs.

Of treatment other than by ligature of the carotid artery I gather these facts from Mr. Rivington's paper. Local compression—that is, pressure on the eye itself—in ten cases cured none. Instrumental compression (of the common carotid artery) was employed in four cases: one died, and three received no benefit. Digital compression was resorted to in sixteen cases: three were cured. Galvano-puncture was employed in two cases: one died, the other received no benefit. Injection of ergotine was performed in one case, making the disease worse. Injection of coagulating fluids was carried out in four cases: two were cured by perchloride of iron, one was made worse, and one was cured by lactate of iron after ligature had failed. When we come to ligature of the carotid artery a very different tale is told. Forty-six cases are mentioned, but as one was malignant it must be excluded. Two died, aged sixty-five and sixty-three. Of eighteen idiopathic cases fifteen recovered and three obtained partial benefit. Of twenty-six traumatic cases twenty-three recovered and three died. In two cases both carotids were tied. Another fatal case has been mentioned above. To these Liverpool can add four, all of which were cured. Another case would have been cured had not ligature been forbidden. Three of these I have treated of in this paper, and a fourth, under the care of Mr. Richard Williams and Mr. Robert Jones,[3] has been already published. The opinion that these cases should be let alone or temporised with, which is so fashionable in London, is based on the idea that they are not aneurysm but varix. Now I do not deny that if an aneurysm is left alone an opening is likely to be made into the cavernous sinus, as this is in the line of least resistance. An aneurysm let alone long enough will always burst. Of course, in young subjects, as in the boy aged fifteen, the resilience of the tissues is such that it takes a long time to produce rupture of the sac. But those who object to ligature are scarcely logical. If the disease is not aneurysm, but varix, why do they employ those remedial agents, such as digital pressure, iodide of potassium, hellebore, &c., which are supposed to influence aneurysm, but not, as far as I am aware, varix, whilst they discountenance the only treatment which, with any approach to certainty, cures aneurysm—namely, ligature? I believe that the very rare cases in which digital pressure has appeared to succeed in curing this disease have been cured accidentally—very likely by displacement of clot in the excitement consequent on the torture necessarily involved in the carrying out of the treatment, and not by the direct action of the pressure. In order to cure directly by pressure one must block the artery for the many hours required to produce a sufficient collateral circulation and at the same time give such an amount of rest to the aneurysm as will allow the clot to coagulate sufficiently firmly to prevent it being disturbed when the full force of the heart is brought to bear on it. Were I asked to pick out a typical example, displaying at once the beneficial effect of ligature and the inutility of other treatment, I should choose the very one on which, as far as I know, the temporisers rest their case—namely, Mr Rivington's. For in this case, surely, it is indisputable, firstly, that there was a communication between the artery and the sinus, seeing that red blood poured out of the orbital vein when it was punctured, and therefore, according to the opponents of ligature, it was an unsuitable case for ligature. It is, secondly, equally indisputable that every conceivable treatment other than ligature was tried without doing any good, and that when ligature was at last resorted to the disease was cured at once. That the perchloride of iron did anything but harm surely no one will maintain in the light of all the other cases cured by ligature.

For the diagnosis between intra-cranial aneurysm and varix there is suggested what I believe is called Nélaton's sign. Nélaton is said to have laid it down as an axiom that if the murmur is continuous the disease is varix, and if interrupted it is aneurysm. One would wonder how many cases he had verified post mortem before he ventured on such an assertion. Failing such evidence, I believe that the distinction is worthless. Whether a murmur is continuous or not depends, I think, almost altogether on the acuteness of the listener's ear. Of the many surgeons who listened to the boy's head at the meeting of the Ophthalmological Society about half of their number said that it was continuous, and the other half that it was interrupted. But, surely, all such murmurs are continuous; if the heart is not in systole the contraction of the large arteries keeps up the murmur, though, of course, less audibly. The murmur heard in the first patient mentioned was continuous; she had almost always a full, vigorous pulse.

To sum up, I venture with some confidence to submit that, except when brought about by direct violence—such as a stab by a pointed weapon or a splinter of bone—these cases, in youth and middle age at any rate, begin as aneurysms: arteries, like teacups, are oftener cracked than broken, and can be cured by being treated as aneurysms, whether they have burst into the cavernous sinus or not; and surely, in these days of aseptic surgery, the best treatment of aneurysm is the Hunterian operation of ligature of the artery leading to it, and in these particular aneurysms, where the possibilities are so grave, where not only sight but even life may be lost, our duty is not only to tie, but, without wasting time in futile experiments, to do as we did in this case—tie at once.

[3] Transactions of the Ophthalmological Society, 1891.

ON SOME FATAL AFTER-EFFECTS OF CHLOROFORM ON CHILDREN.

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As a rule, children pass from chloroform narcosis into a condition of deep natural sleep, which lasts for an hour or more unless disturbed by pain or vomiting. No attempt to rouse the patient should be made unless collapse is present or the breathing becomes stertorous and the face dusky. He should be put to bed with as little disturbance as possible. The bed should be previously warmed by hot-water bottles. The room should be kept quiet, dark, and cool. The patient's head should be turned on one side on a low pillow, and he should be carefully watched, for accidents—such as the entry of vomit, or falling back of the tongue into the glottis—are as likely to happen now as during the operation. Once when a child after an operation had been put to bed without these precautions being taken I chanced to look round whilst washing my hands and saw that she had stopped breathing. Her jaw had dropped, and she was rapidly becoming black in the face. The head was at once turned to one side, the chin drawn forward, and the danger was soon over; but in another minute it might have been too late to save her life. Vomiting, though usual, is not invariable. Some children, even after prolonged operations, vomit little or not at all, and as soon as awake they begin to clamour for food. Solid food should, of course, not be given until three or four hours have elapsed, but milk may be allowed in small quantities, and if at the end of this time they seem unlikely to be sick some light, easily digestible solid food, such as sponge cake or milk pudding, may be provided. Vomiting, unless frequent, persistent, and exhausting, after six or eight hours have elapsed need not be checked by drugs. Simple remedies, such as sipping very hot water out of a feeder or sucking small pieces of ice, which most children like, usually suffice. When nourishment becomes necessary they may be allowed to sip cold milk slowly. The addition of liquor calcis saccharatus to the milk in the proportion of two teaspoonfuls to the feeder sometimes enables it to be retained. This preparation is preferable to ordinary lime water because it may be given in such small quantities as not to drown the milk. Lime is itself a cardiac stimulant, and Dr. Lauder Brunton has shown that the act of sipping also stimulates the heart; so the treatment may be useful when there is a tendency to collapse. If, after from six to eight hours, vomiting shows no tendency to subside and no nourishment can be kept down, it is necessary to feed by nutrient enemata. Unfortunately the constant retching often causes almost immediate expulsion of the enema. When this is so, bromide of potassium and chloral in doses suitable to the patient's age may be added to the

injection. Sometimes, if administered previously, these drugs will not only check the vomiting, but will allow the enema to be retained. Enemata should be small. The common formula used is half a drachm to one drachm of strong meat essence and the same quantity of brandy, with a raw egg beaten up in half an ounce of peptonised milk. Liquor opii sedativus given by the mouth in doses of one drop for each year of age, together with the hypodermic injection of from one-sixteenth to one-eighth of a grain of morphia, often succeeds for the time; but the objection to opium and morphine is that as soon as the immediate effect has worn off sickness is apt to recur more violently than ever. These remedies are, however, but rarely called for. Children often on regaining consciousness commence to utter piercing cries and continue to do so for many hours. In many cases this is due to pain or to a tight bandage or to a constrained position; but often no obvious cause can be detected, and the child itself will deny that it is in pain, or else decline to say where the pain is, although sufficiently intelligent to do so. I have known a child to scream almost incessantly throughout one night and the greater part of the morning following an operation, without apparent cause. The bromides, chloral, paraldehyde, and other remedies were without effect, but she eventually became quiet and slept after an injection of morphia. The symptoms did not recur, and in this and many other cases no evil consequences ensued, but occasionally screaming and vomiting become symptoms of the gravest import. In this paper ten such cases, nine of which were fatal, are recorded and discussed. The condition in these cases resembles that of acute delirious mania. Shrill, piercing screams are uttered at short intervals. The eyes are dry, the pupils often dilated; the face is sometimes flushed, sometimes pale, and has a look of wild terror and anxiety. There are almost always great restlessness and sleeplessness, the patient tossing and struggling, and requiring constant attention lest the dressings should be torn off or fractured bones displaced. Consciousness is sometimes lost early and in some cases is never regained; but, as a rule, there are intervals in which the child appears to be dull and apathetic, yet answers rationally when addressed and usually denies that it is in pain. Sometimes also in the height of excitement it may be soothed for a time, but the screaming will soon recommence. Headache does not seem to be present; at all events, it is not complained of, and it is usually an easy matter to decide whether a child has pain in its head, however young it may be. Grating of the teeth has occasionally been observed, and in one case the pupils were unequal shortly before death. Strabismus has been absent. Vomiting of an extremely violent, copious, and persistent type is an all but invariable symptom. Not only is food given by the mouth almost immediately returned, but the vomiting occurs when the patient is fed entirely by the rectum. The vomit at first, when the stomach is empty of food and when there are intervals in the attacks of vomiting, is clear or yellowish, but for the most part it exactly resembles the dregs of beef-tea. In one case only, but I believe on insufficient grounds, it is described as "bloody"; in another it is called "coffee ground." It has answered (in all cases when the test was employed) to Gmelin's reagent and appeared to consist mainly of bile, probably combined with mucus, succus entericus, and gastric juice. In its incessancy and in the volume and character of the vomit it resembles precisely the vomiting which accompanies cerebral disease. In a case of chronic hydrocephalus, which was under observation for nearly two years, periodic attacks of vomiting lasting for from twenty-four to forty-eight hours occurred at intervals of about a week. The vomit in all respects resembled that of the cases now under consideration. It was either acid or neutral; it answered to Gmelin's test for bile pigment, and it never contained blood. The temperature generally falls to 97° or 98° F. immediately after the operation. A temperature of from 95·8° to 96° was only noted in one case, and this was the only one of ten which recovered. The temperature usually undergoes several moderate rises and falls and is commonly above normal at the time of death. In one case it rose to 103° four hours after the operation and remained so throughout. In two cases it reached the height of 103·2° and 104·6° just before death. In one it remained at from 99° to 98°. In all the rest it varied between 99° and 102°. Death, as a rule, is owing to gradual exhaustion, the screams become less powerful and are uttered at longer intervals, the vomiting is less violent, unconsciousness leads to coma, respiration and pulse gradually fail, the latter often being imperceptible for a considerable time before the breathing ceases. The type of breathing is that which is common in cases of death from gradual respiratory failure. Inspiration is spasmodic, irregular, and gasping, with gradually increasing intervals between the acts, until the last breath is drawn; whilst expiration is throughout inefficient and collapsing, and is attended by little or no action of the extra-expiratory muscles. In one case the symptoms came on directly after the operation and continued for nine hours, when the child died suddenly. In another, symptoms of danger did not appear until twelve hours after the operation and only lasted for an hour or so before death. For permission to record the following cases I am indebted to Messrs. Watson Cheyne and Stanley Boyd, surgeons to the Paddington-green Children's Hospital, and to Mr. Bilton Pollard, surgeon to the North-Eastern Hospital for Children, Hackney-road.

CASE 1.—A boy four years of age was admitted to the Paddington-green Children's Hospital on Sept. 6th, 1893, under the care of Mr. Stanley Boyd, suffering from double talipes equino-varus with contraction of some of the thigh extensors. There was also wasting of the left arm. The deformities were due to infantile paralysis occurring at the age of four months. In other respects he seemed on admission to be in perfect health. On Sept. 7th, at 4 P.M., under chloroform, Mr. Boyd divided the tendo Achillis and also the tendons of the flexor longus pollicis in each foot. Tight bands under the arch of each foot were also divided in several places, and finally the contracted tendons below the superior iliac spines on each side were severed. The punctures were dressed with carbolic gauze, and the feet put up in normal position by means of plaster-of-Paris bandages. Cloths soaked in carbolic acid (1 in 20) had been applied to the feet for about two hours before the operation, which lasted about an hour. The chloroform was taken well, but the patient vomited brown, bilious-looking fluid once or twice. He came completely round without appearing to be unduly collapsed and in the evening seemed to be well and lively and cried for food. The temperature after the operation was 97° F., at 9 P.M. it was 99°, but at 5 A.M. on the 8th he suddenly began to vomit. The house surgeon was sent for and found him unconscious; his pulse was very weak, and his breathing shallow and irregular. He was very restless, constantly shrieking shrilly and grating his teeth. Twenty minims of ether were injected, after which the pulse seemed to improve, but the vomiting remained incessant. The vomit was generally of a dark-brown colour, somewhat resembling beef-tea, and answering to Gmelin's test for bile, but it was sometimes light or slightly yellowish. Four ounces of urine were drawn off by catheter (none having been passed since the operation); it contained neither albumen nor carbolic acid. At 1 P.M. a small quantity of urine was again drawn off; this also contained no carbolic acid, but some albumen was present; in both samples the sulphates were normal. The child's condition changed but little all day, except that the breathing became of a more sobbing character, with convulsive movements of the lower jaw, and for the last hour or so of life it was of a sighing or moaning type. Consciousness was never regained. At 7.30 P.M. the dressings were changed for salicylic wool, on the chance that carbolic acid poisoning might be the cause of the symptoms, but no improvement took place, and the child gradually sank and died at 11.20 P.M., thirty hours after the operation. The temperature at 9 P.M. was 101°.

Necropsy.—The body was well nourished. The lungs were congested, but otherwise quite normal. The heart, somewhat pale, was in diastole. The right auricle was full of dark clot. The liver was small; it weighed fourteen and a half ounces; it was of a pale buff colour, studded by minute purple dots. On section it was of similar appearance and felt greasy to the touch. Oily fluid remained on the surface of the knife after gently scraping. Under the microscope little else besides oil globules and débris of liver cells could be seen in a fresh scraping. The kidneys were normal. The spleen was small and pale. The brain was normal.

Microscopical examination of the liver.—Thin sections of the liver, on being placed in a 1 per cent. solution of osmic acid, became in a few moments of a deep mahogany brown, which deepened into coal black within a few hours. By transmitted light they presented a variegated appearance, due to the much deeper staining of the circumferential portions of the lobules as compared with the more central parts. About two-thirds of the external portions of the lobules were of an intense black, whilst the colour gradually faded to a pale drab in the immediate neighbourhood of the intra-lobular veins. The cells of the periphery of the lobules were globular and

distended, but towards the centre they were of normal shape, and looked granular from containing innumerable droplets of oil. The nuclei of all the cells stained deeply with logwood. The connective tissue cells were normal and showed no signs of fatty degeneration. The condition then was one of intense fatty infiltration, apparently unaccompanied by fatty degeneration.

CASE 2.—A girl eight years of age was admitted to the Paddington-green Children's Hospital on March 7th, 1890, under the care of Mr. Stanley Boyd, for the treatment of double genu valgum, with curvature of the tibiæ and the fibulæ, all being due to rickets. The child was well nourished, and the organs of the chest were healthy. The tongue was coated with fur, and the breath was foul. Calomel and castor oil were ordered, which acted once. On the morning of the 8th cloths soaked in a 1 in 20 carbolic solution were applied to the left leg, after which the child vomited once, and the urine contained carbolic acid. At 5 P.M., the patient being under chloroform, Mr. Boyd divided the bones of the left leg and also the femur on the same side. Owing to difficulty in getting the limb straight the operation lasted for one hour and ten minutes. The anæsthetic was taken well, except that the pulse towards the end became irregular and intermittent. Five drachms of chloroform were used in an inhaler. The limb was dressed with double cyanide gauze. The child vomited immediately after the operation and continued to do so at short intervals until the end. The vomit was of the same dark-brown beef-tea-like appearance as in Case 1. Two hours after the operation she was breathing irregularly, and the pulse was irregular and weak. The temperature, 97° F. at first, rose to 99·8°. Throughout the night she was extremely restless and delirious, and she remained so during the following day (the 9th), vomiting constantly, grinding her teeth, and screaming shrilly at short intervals. The pulse was 140, irregular, and collapsing, the respiration being as before. The urine, which on the morning of the operation had contained carbolic acid, was no longer smoky. There was no albumen; she passed urine unconsciously in considerable quantities. She was entirely unconscious throughout the 10th, and remained so till 10 10 P.M., when she died with gradual failure of heart and respiration. The temperature was 101·8° at 5 A.M. on the morning of the 10th, it was normal through the day, but again rose to 101° an hour before death. The treatment consisted in the administration of bromide of potassium in four-grain doses every four hours throughout the 9th. Five grains of chloral were added on the 10th, and an injection of one minim of morphia was given. Brandy in doses of from half a drachm to one drachm was given every two or three hours.

Necropsy.—The wounds looked quite healthy; a little fluid dark blood escaped from that in the thigh. The blood throughout the body was fluid. The brain was normal. The lungs were congested, but being otherwise normal, full of air and not œdematous. The heart was small; there was much fat on its surface, but it was of tolerably firm consistence and of a good colour. The right side was relaxed, the left being contracted; all the cavities were empty. The pericardium was normal; there were no petechiæ on its surface. The liver was small; it weighed 1 lb. 3 oz. The left lobe was very thin. The whole organ was of an extremely pale fawn colour, being studded with pinhead-sized pale purple dots. The substance was brittle, breaking with granular fracture. It felt greasy, and much oily fluid could be scraped off its surface with a knife. It was singularly bloodless; a very little pale fluid blood escaped from the cut vessels. The gall-bladder was distended with dark-green bile. The spleen was normal. The cortex of the kidneys was pale, the medulla dark, and the capsule non-adherent.

CASE 3.—An infant one year and four months old was admitted to the Paddington-green Children's Hospital on June 10th, 1889, under the care of Mr. Watson Cheyne, for radical cure of congenital hydrocele. A large quantity of ascites was also present, for which no cause could be assigned. (In February of the same year the hydrocele had been tapped and twelve ounces of clear fluid were drawn off, most of which must have come from the abdominal cavity, as the hydrocele itself was small). The child otherwise appeared to be in perfect health. The urine contained an excess of urates, but was otherwise normal. From 2 to 4 P.M. on the 11th carbolised cloths (1 in 20) were applied to the hydrocele. Five hours later the child began to vomit, and was sick about seven times during the night. The vomit was at first greenish and afterwards watery. However, on the morning of the 12th he seemed to be well and the vomiting had ceased. No note as to urine was taken. At 3.30 P.M. chloroform was administered and Mr. Watson Cheyne operated. The operation was a lengthy one. The sac of the hydrocele was dissected from its surrounding tissues, then opened and a quantity of bloodstained serum expressed both from it and from the abdomen above. The sac was then tied and severed, an attempt being made to block the ring by the stump, but this was unsuccessful as fluid could still be squeezed past it from the abdomen. Free drainage was allowed for and the wound dressed with carbolic gauze. The patient took the anæsthetic well, but seemed to be collapsed after the operation. Twenty minims of ether and one drachm of brandy were injected per rectum. The temperature fell to 98° F. Vomiting was excessive throughout the night, the vomit being of coffee-ground-like material. The temperature rose to 101° at 1 A.M. on the 13th; at 9 A.M. it had fallen to 98°; at 1 P.M. it was 99·6°. The pulse became weak and running. The urine was olive-green in colour (carboluria). The child was sleepless, restless, and continually screaming. The dressings were changed for sal alembroth and an enema of thirty minims of dilute sulphuric acid with twenty minims of brandy every two hours was ordered. The infant gradually sank and died twenty-four hours after the operation.

Necropsy.—The wound was perfectly healthy. The intestines were congested, dry, and had lost their glistening appearance. There was no fluid in the abdominal cavity. The heart was normal-looking; the left side was contracted, the right being dilated and containing black clot. The lungs, spleen, and kidneys were normal. The liver was large, extending an inch and a half below the ribs. It was firm and singularly pale. Microscopic examination showed marked fatty infiltration, the condition in all respects resembling that found in Case 1.

CASE 4.—A girl four years of age was admitted to the Paddington-green Children's Hospital on Sept. 17th, 1888, under the care of Mr. Watson Cheyne, suffering from double genu valgum. On admission she appeared to be in good health, except for rickety deformity. The heart, lungs, and urine were normal. On the 18th, at 4 P.M., Mr. Cheyne operated, the patient being under chloroform. Both femora were divided. The operation lasted about an hour. The amount of chloroform given was not noted, but the patient took it well. She was quite awake when sent back to the ward and did not appear to be collapsed. Carbolic lotions and dressings were used. The limbs had been carbolised in the usual manner on the morning of the operation. In the evening the child vomited a good deal, crying out with pain. Seven and a half minims of liquor morphinæ were given. On the 19th she screamed constantly during the night, and seemed to be delirious. The vomiting was persistent. Ice was ordered to suck. At 5 P.M. she seemed rather dull, but spoke clearly when addressed and said that she had no pain. The pulse was rather weaker, but the heart sounds were good. Mustard and linseed poultices were ordered to be applied to the epigastrium. The vomiting still continued. The child passed urine after the operation which was stained with carbolic acid. She gradually sank and died at 8 P.M., twenty-seven hours after the operation. The temperature, which had previously been normal or 98° F., rose to 102° immediately before death.

Necropsy.—The wound was healthy looking. Both pupils were dilated. The lungs were emphysematous at their free borders; the lower lobes were congested and œdematous. The left side of the heart was empty and contracted; the right side was distended with black non-adherent clot; the muscle was pale, but not apparently fatty. The liver was pale and felt somewhat greasy. The kidneys and spleen were normal. The walls of the stomach were pale and thin, and contained a little stringy dark-coloured fluid. There was a good deal of venous congestion in the brain, otherwise it was normal. Two observers present at the necropsy considered that the brain emitted a strong odour of chloroform; but a third was unable to detect any such odour.

CASE 5.—A girl four years old was admitted to the North-Eastern Hospital for Children on June 14th, 1893, under the care of Mr. Bilton Pollard, for treatment of double psoas abscess and spinal caries. The child was well nourished, and there was no sign of disease other than spinal. A compress wrung out in a 1 in 20 carbolic solution was applied to the abdomen for five hours before the operation. On June 16th, at 6 P.M., the patient being under chloroform, Mr. Pollard opened the abscess on the right side; about one ounce of curdy pus escaped. The abscess cavity was washed out thoroughly

with warm boiled water. It was found that the abscess on the left side communicated with that on the right, but it was impossible to reach it to scrape or wash out; on pressing it curdy pus passed from it into the abscess cavity on the right side. The latter was thoroughly scraped and mopped out, the wound was sewn up without drainage, and blue gauze dressings were applied, the layer next the skin being damped with a 1 in 20 carbolic solution. The operation lasted for about an hour. At 10 P.M. the temperature was 103° F.; the child was very restless, calling for water, and flushed; the pulse was full. During the night of June 16th-17th she obtained no sleep, being restless, and crying all night. She was very thirsty. The temperature was 103°; the pulse was small and rapid. She had vomited twice since the operation. Her eyes were sunken; urine was passed freely and there was no carboluria. Two and a half minims of tincture of opium were prescribed and some brandy was given every hour. At 10 A.M. the child was worse; the extremities were cold; brandy was given and an injection of ether administered. She remained very restless, "with a wild look." The temperature remained at 103°, the pulse became very small, the respiration shallow, and she died sixteen hours after the operation.

Necropsy.—There were some tuberculous glands round the roots of the lungs. A gland had ulcerated into the left bronchus and there was some calcareous matter in the tube. A few calcareous tubercles were noted in the lungs, the lungs themselves being œdematous and of a purple colour. They did not sink in water. The spleen was slightly enlarged. The liver was large and very pale, being extremely fatty on section. The kidneys were pale and soft—perhaps post-mortem change. The right side of the heart was dilated with dark clot; it was soft in substance. The psoas muscle on each side was hollowed out by an abscess. That on the right side was empty. The left side still contained much thick caseous matter. The abscesses communicated through the spine, the whole body of the third lumbar vertebra being eaten away and replaced by caseous pus.

CASE 6.—A girl seven years of age was admitted to the Paddington-green Children's Hospital on June 1st, 1888, under the care of Mr. Stanley Boyd, for the treatment of a strumous knee. On admission she was fairly healthy looking, but anæmic. The urine was slightly alkaline and contained about one-sixth albumen. On the 3rd, at 3.30 P.M., Mr. Boyd excised the joint, the patient being under chloroform. The femur and tibia were extensively diseased and there was a large popliteal abscess. The operation was performed under the carbolic spray. Carbolic dressings were used, the joint cavity being freely smeared with iodoform in a 1 in 20 carbolic solution; the knee had been previously treated in the usual manner with cloths wrung out in a 1 in 20 carbolic solution. The patient was rather collapsed after the operation, and brandy taken by the mouth was ejected, but it was retained when administered with beef juice per rectum. At 8 P.M. the dressings were soaked with blood and were changed, the bleeding being arrested by cold irrigation and pressure. The patient became very restless and did not sleep. She screamed out a great deal and vomiting was incessant. The pulse became smaller and weaker, and she died at 3 A.M. on the 4th, within twelve hours of the operation. The temperature rose to 103·2° F. just before death. The condition of the urine after the operation was not stated.

Necropsy.—The pelves of both kidneys contained pus, but the kidneys themselves and all other organs appeared to be normal.

CASE 7.—A boy three years of age was admitted to the Paddington-green Children's Hospital on Nov. 15th, 1887, under the care of Mr. Watson Cheyne, suffering from vesical calculus. On admission the child was healthy looking and well nourished. The urine was alkaline; it contained phosphates and pus, and one-eighth of its bulk was albumen. On the 22nd, at 3.30 P.M., Mr. Watson Cheyne removed the stone by the supra-pubic method. Chloroform was given and taken fairly well. The pulse was very weak. The temperature was 97° F. after the operation. The carbolic spray was used and the wound was dressed with "blue gauze" wrung out in a 1 in 20 carbolic solution. Carbolic cloths had also been applied to the abdomen before the operation. At 6 P.M. the child vomited. He was extremely restless, constantly crying out. He was given an injection of morphia, after which he became quieter for a time. At 7 P.M. the pulse was very weak, but improved after one drachm of brandy was administered. At 9 P.M. the dressings were soaked with urine and were changed. At 11.30 P.M. he was uttering piercing shrieks, disturbing the whole ward every few minutes; he was continually tossing about, sweating, and very cold. Twenty minims of paraldehyde were given and hot-water bottles applied. At 12 10 P.M. one-twenty-fourth of a grain of morphia was again injected and he became quieter, but still screamed now and then. At 1 A.M. the wound was dressed. The child was very restless, but his pulse was good and the respiration was normal. At 1.20 P.M. he died quite suddenly. The nurse stated that he had continued to scream until a few moments before death occurred, ten hours after operation. The temperature was 98°.

Necropsy.—The pupils were dilated, but equal. The heart contained post-mortem clot in all its cavities; the walls and valves were healthy. There was one drachm of clear fluid in the pericardium. The lungs and liver were normal. The spleen was slightly enlarged. Both the kidneys were in the early stage of granulation; they were markedly congested, and the capsule was somewhat adherent. The ureters were normal. The bladder showed evidence of much inflammation; the mucous membrane was thickened, rough, and granular, especially at its base; there were few ecchymoses on its posterior wall. The brain was slightly congested, but there was no evidence of inflammation about the meninges.

CASE 8.—A girl four years of age was admitted to the Paddington-green Children's Hospital on Jan. 23rd, 1890, under the care of Mr. Stanley Boyd, suffering from an iliac abscess. On admission the child was well nourished. The abscess was due to disease of the upper lumbar vertebræ; in other respects the girl seemed to be healthy. On Jan. 25th, at 5 P.M., Mr. Boyd evacuated the abscess, washed it out with boracic lotion and injected two drachms of iodoform and glycerine (10 per cent.). A pad soaked in a 1 in 20 carbolic solution had been previously applied to the lower part of the abdomen for one hour. Chloroform was taken badly, the pulse becoming extremely rapid and small. The child was greatly collapsed after the operation. The temperature sank to 97° F.; the child was very cold and constantly vomited fluid resembling the dregs of beef-tea, sometimes containing blood (*sic*). The pulse was thready and quick. On the 26th the vomiting was incessant; the child was either apathetic or else extremely restless and wildly delirious. There was now carboluria. The vomiting stopped at midnight. Half a drachm of brandy was administered subcutaneously every hour. On the 27th the vomiting recommenced at mid-day; the vomit was at first clear, but at 3 P.M. became dark again; the vomiting ceased at 6 P.M. The carboluria had disappeared. During the night of the 27th-28th there was much restlessness and vomiting. One minim of solution of morphia administered subcutaneously quieted the child for a time. There was retention of urine, and two ounces which were drawn off contained a trace of albumen, but no carbolic acid. The temperature rose from normal to 103·4° at 1 P.M. An ice cap was applied to the head and turpentine stupes to the abdomen. Three-quarters of a grain of citrate of caffeine were administered subcutaneously every two hours; nutrient enemata were ordered. On the 30th the child had not been sick for forty-eight hours, but was nevertheless sinking. On the 31st the vomiting again came on. The abdomen was retracted and œdematous. The child voided urine. The abscess was evacuated, and iodoform-smelling pus was withdrawn; the cavity was irrigated with boracic lotion. The pupils were unequal, having been so since the 30th. The temperature rose from normal at 1 P.M. to 104·6° at 9 P.M. The pulse was then imperceptible. The patient died at 11 P.M., six days after the operation. Vomiting and irritable restlessness continued almost to the end. A necropsy was not allowed, but examination of the wound showed that the operation was satisfactory. There was no sign of peritonitis.

CASE 9.—A girl two years of age was admitted to the Paddington-green Children's Hospital on May 14th, 1891, under the care of Mr. Watson Cheyne, for the treatment of an iliac abscess. On admission the patient was a healthy looking, sunburnt child. A lower dorsal curvature was of about four months' duration; the abscess had been noticed for four weeks. On the 14th, at 4.5 P.M., the abscess was freely opened, its walls were scraped, and the cavity was irrigated with a 1 in 4000 solution of corrosive sublimate. No iodoform was injected. The chloroform (half a drachm) was taken well. The operation lasted for fifteen minutes. The child seemed to be quite well after the operation; she vomited slightly once. At 5 A.M. the hands were noticed to be cold, but she seemed well and took milk. At

6 A.M. the house surgeon was called and he found the patient dying. She died twenty-five minutes later. The temperature had been 93° F. after the operation; at 5 A.M. it had risen to 99·2°.

Necropsy.—The peritoneum was congested and a little fluid was found round the abscess; the abscess cavity was empty; no perforation was discovered. A large caseous mass occupied the site of the eleventh dorsal vertebra and an abscess containing an ounce of pus was found on the left side. There was "no apparent cause of death."

CASE 10.—A girl aged eight years and a half was admitted to the Paddington-green Children's Hospital on Sept 1st, 1891, under the care of Mr. Watson Cheyne, for treatment of a psoas abscess dependent upon lumbar spinal curvature. On Sept. 3rd she was sick twice and had abdominal pain, probably the results of the administration of calomel and castor oil. On the 4th the abscess was opened, scraped internally, and irrigated with a 1 in 4000 solution of corrosive sublimate. The cavity was wiped out with sponges, not injected with iodoform, and the wound was sewn up without drainage. After the operation she was very pale and restless; she was sick constantly in the evening and during the night and complained of great abdominal pain. The temperature sank to 95·8° F. One drachm of brandy alternately with champagne was ordered, and one-eighth of a grain of morphia was given subcutaneously. The temperature rose to 98·2° at 9 A.M. on the 5th, but soon fell to 96°. She became quieter, had no pain, but the pulse was very weak and rapid. She was not restless during the 5th, but vomited frequently, and there was copious diarrhœa, with some blood in the motions. On the 6th the diarrhœa still continued. She had not been sick since the previous afternoon. The right side of the abdomen was very tender. She had no pain, but was very pale and thirsty. The temperature was normal. The pulse was very weak and rapid, but better than on the preceding day. The gums were not sore, nor was there salivation. By the 9th she had gradually improved, the diarrhœa had ceased, the pulse was good and the temperature was normal. She recovered completely without further trouble.

(To be continued.)

TWO RARE VARIETIES OF STRANGULATED INGUINAL HERNIA COMPLICATED BY RETAINED TESTICLE.

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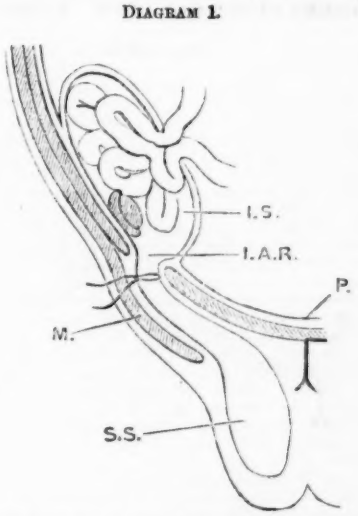
DURING the past twelve months, in operating on cases of strangulated hernia, I have met with two varieties which, though well recognised and described, are yet comparatively so rare as to make them worthy of record. Both occurred in patients in whom one testicle had failed to descend completely into the scrotum, and both owed their peculiarity to an arrest in, or deviation from, the normal process of formation of the tunica vaginalis. The following are brief clinical histories and descriptions of the cases.

CASE 1.—*Retentio iliaca testis; strangulated intra-parietal hernia; death from unrelieved intestinal obstruction.*—A man twenty-seven years of age was admitted into the General Hospital, Birmingham, on Nov. 10th, 1893, suffering from symptoms of strangulated hernia. His history was that early in the morning of the day of his admission whilst at work he was suddenly seized with violent abdominal pain. He felt very sick and vomited several times, and then found that his rupture had become much larger than usual, and could no longer be reduced. He had a congenital inguinal hernia on the right side, but he had not worn any truss for seventeen years, as his rupture could always be easily reduced. On admission he complained of violent colicky pain across the epigastrium and tenderness in the right groin. There was a hernia in the right half of the scrotum about the size of a small lemon, but rather more cylindrical in shape than usual. The hernia was tender, dull on percussion, and irreducible, but there was a distinct impulse in it. The right testicle could not be felt. The bowels had not been moved nor had flatus been passed since the previous day. A hot bath was given and taxis applied by the resident surgical officer, but without any effect on the hernia. I performed herniotomy the same evening. The sac, which was unusually thick, was opened, and several ounces of blood-stained fluid escaped. This was washed away and a knuckle of deeply congested gut exposed at the neck of the sac. The intestine was returned without any difficulty, but on attempting to draw it out again for purposes of examination it was found impossible to do so. The sac was dissected away from its connexions, ligatured high up at its neck and excised. No trace of testicle was seen. The wound after being irrigated with perchloride of mercury lotion was closed in the usual manner. He passed a restless night, but when seen on the following day appeared to be comfortable and had lost all his abdominal pain and tenderness. During the next few days he complained of some slight abdominal pain and vomited occasionally. His worst symptom during this time was his continuous restlessness, which was scarcely relieved by opiates. On Nov. 15th there was marked tenderness in the lower part of the abdomen, with rigidity of the abdominal muscles. Purgative enemata were given without relief. The same evening he suddenly became much worse. His pulse was 164, being scarcely perceptible at the wrist; his extremities were cold and blue, and his restlessness extreme. Although he was evidently dying from unrelieved obstruction, his condition was such as to preclude any further operative measures, and he died on the following day.

Necropsy.—There was some general peritonitis in the lower part of the peritoneal cavity and the intestinal coils were much distended. Below and slightly external to the internal abdominal ring there was a sac communicating by a small orifice with the abdominal cavity, through which passed a coil of small intestine tightly strangulated. The sac, which was lined throughout by peritoneum, contained some bloody fluid and several coils of intensely black intestine. The testicle, small and atrophied, lay in the outer wall of the sac on the iliac fascia below and external to the internal abdominal ring. The sac communicated by a narrow channel with the stump of the scrotal hernia which had been ligatured, and lay in the subperitoneal tissue on the internal surface of the internal oblique and transversalis muscles.

DIAGRAM 1.



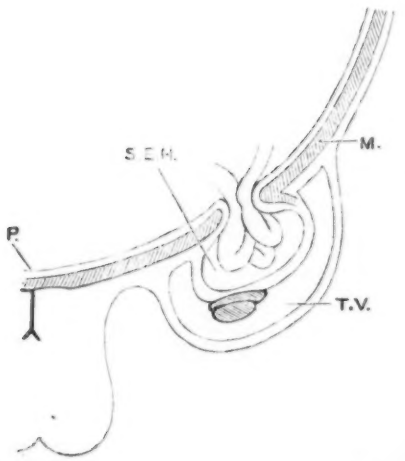
I. S., Intra-parietal sac. I. A. R., Internal abdominal ring. P., Peritoneum. M., Muscle. S. S., Scrota sac.

The position of affairs in this case is best explained by a reference to Diagram 1. The testicle in its course to the scrotum had been, from some cause, arrested in its progress at the internal abdominal ring, and instead of passing along the inguinal canal, had gravitated towards the iliac fossa, dragging with it a pouch of peritoneum, thus forming a large dilated tunica vaginalis lying between the peritoneum and the abdominal parietes; but an offshoot of this sac passed along the inguinal canal into the scrotum. In this way a sac, lined by peritoneum and containing the testicle, was formed between the peritoneum and the abdominal walls, having a diverticulum which passed into the scrotum. Both sac and diverticulum

communicated by a common orifice with the general peritoneal cavity. It was, in other words, one of the varieties of intra-parietal hernia, or "hernia en bissac" of French writers. The anatomical peculiarities of the hernia explain several of its clinical peculiarities; they explain the tenseness and irreducibility of the scrotal tumour, and yet the easy reduction of the intestine at the time of operation—the intestine being, of course, only reduced from the diverticulum into the main sac. They also explain the occurrence of a distinct impulse in a hernia tightly strangulated, and the impossibility during operation of withdrawing a coil of intestine after reduction for inspection. One can only deplore that the complication present was not suspected or recognised until the patient's condition was such as to preclude any further operative measures for its relief.

CASE 2. *Testicle retained in inguinal canal; strangulated encysted hernia; herniotomy; recovery.*—A man forty-five years of age was admitted into the General Hospital, Birmingham, on Nov. 20th, 1892, suffering from symptoms of intestinal obstruction of two days' duration. He gave the following history. The left testicle had never been present in the scrotum, but could formerly be felt in the groin. On several occasions after hard work he had had attacks of acute pain in the retained testicle lasting for several days. For many months past there had been a lax bag of fluid in that groin enveloping the testicle. Two days before admission, whilst at work, he was seized with sudden acute pain in the part; the pain was much more acute than in previous attacks, and radiated all over the abdomen. Vomiting had been

DIAGRAM 2.



S. E. H., Sac of encysted hernia. P., Peritoneum. M., Muscle. T. V., Tunica vaginalis

almost incessant during the last twenty-four hours, and there had been no passage of flatus or fæces in spite of frequent purges. On admission he was writhing with acute colicky pains across the epigastrium and vomited frequently. In the left groin was a lax fluid swelling about the size of a large orange. The fluid swelling was neither painful nor tender; but through the fluid could be felt a hard, very tender tumour, tense and without impulse. Herniotomy was performed, an incision being made over the most prominent part of the fluid swelling. A sac was opened containing from one to two ounces of clear, straw-coloured hydrocele fluid. A tense, thick-walled tumour was found lying at the bottom of the sac and bulging into it. An atrophied testicle lay attached to its lower and posterior part. The swelling was incised and opened. About six drachms of dark-coloured serum escaped and a ragged opening was exposed leading into a third sac, which contained a coil of strangulated small intestine. After reduction of the intestine the whole sac with testicle and cord was dissected away from its connexions up to the internal abdominal ring. The spermatic cord was transfixed and ligatured with silk, and the sac itself, after ligature of its neck, was cut away. The wound was dressed in the usual way. The patient made an uneventful recovery. The wound was dressed on the following day and the tube removed. It was dressed a second time on the eleventh day, when it was all soundly healed, and the patient left the hospital a few days later well.

This case was evidently a strangulated inguinal hernia, which had in its descent pushed before it the enlarged tunica vaginalis of an undescended testicle as it lay in the inguinal canal; in other words, it was an example of the strangulated encysted hernia of Sir Astley Cooper. A diagrammatic representation of the parts as they lay in the groin is given in Diagram 2. No difficulty presented itself in diagnosis during the operation. The external sac was so lax that it was felt that it could not be the seat of the symptoms. On opening the second sac the dark blood-stained serum which is met with in tightly strangulated hernia at once escaped, and the intestine lay exposed at the bottom in a state of strangulation.

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THE TREATMENT OF EMPYEMA.

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IN dealing with the subject of effusions into the pleural cavity it must be remembered that there are certain peculiarities present which distinguish them from ordinary fluid effusions, such as those in the peritoneum or in the knee-joint. Amongst these peculiarities the most important is the elastic retraction of the lungs. In a previous paper I described the importance of this factor in the diagnosis of pleural effusion, pointing out that "there are two distinct stages in pleural effusion, the first while the pressure of the fluid is negative and is held in suspense by the elasticity of the lungs, and the second when the pressure of the fluid is positive, the lung elasticity having been exhausted. In the first stage there may be various displacements owing to the elastic tension of the lungs drawing the organs out of their normal position, and in the second stage displacements are due to the pressure of the fluid pushing the organs out of their normal position."[1]

In this paper I shall discuss the importance of the lung elasticity in connexion with the operative treatment of empyema. It is held and asserted by many that as soon as a pleural cavity containing fluid is opened there is a rush of fluid through the aperture owing to the recoil of the parietes, which have been distended by the effusion. Dr. Goodhart, writing on empyema, says: "In recent cases, directly the pus is let out the tension is relieved, and there is a rush towards the opening; the ribs fall in a little, the diaphragm goes up, the mediastinum yields, the other lung somewhat also, and all the parts press shoulder to shoulder in the same way as the surrounding parts drop down, as the bladder contracts when the urine is voided."[2] There are others who hold that this rush of fluid through the opening occurs only in exceptional cases—namely, when the fluid is very excessive in amount and there is a positive intra-pleural pressure. Such cases are comparatively rare in the present day, because it is now fully recognised that the condition is one of great danger to the patient, and operative treatment has therefore been employed before its development. It was not so, however, at the time when relief by puncture was first employed, and Trousseau, amongst others, had many cases in which the pleural effusion was enormous. In his clinical lectures he thus described the behaviour of the fluid on tapping: "The trocar has penetrated the pleural cavity—a fact ascertained by feeling that its point can be moved about freely in a hollow space. On the withdrawal of the stylet the fluid at first flows slowly, then in a continuous jet, and at last in jerking gushes."[3] He further adds that in many cases there will be no flow at all as long as the patient breathes quietly. These experiences are distinctly opposed to each other. In the quotation given from Dr. Goodhart's writings the fluid is described as being in a state of tension, and its

[1] The Physics and Diagnosis of Pleural Effusion. THE LANCET, July 22nd, 1893.

[2] On the Behaviour of Fluid in the Chest and the Treatment of Empyema. Brit. Med. Jour., vol. i. 1887, p. 1293.

[3] Trousseau: Clinical Medicine, vol. iii., p. 273. *Cf.* also Fraentzel's article on Pleuritis in Ziemssen's Cyclopædia of Medicine, vol. iv., p. 696.

expulsion is ascribed to the following forces. 1. The contraction of the diaphragm. It is difficult to see how this acts, as the diaphragm contracts in a downward direction, which would not aid the exit of the fluid, and any upward movement is dependent on the elastic recoil of the lungs. 2. The action of the intercostal muscles on the affected side in expiration. This is admittedly slight in pleural effusion, and these muscles have been found in a weakened condition due to inflammation spreading from the pleura. In most cases they are not even bulging, although from the so-called tension of the fluid one would expect the soft parts to yield to some extent. 3. The recoil of the displaced mediastinum. It has been shown by Dr. Douglas Powell that the displacement of the mediastinum is due chiefly to the elastic traction of the sound lung; this recoil, therefore, is possible only when there is a marked positive pressure in the pleural cavity, and even then it is trifling. 4. The recoil of the sound lung. This action is opposed to the laws of physics, for the inherent tendency of lung tissue owing to its elasticity is to contract and not to expand. I have usually found that in uncomplicated cases of empyema or simple pleuritic effusion, the fluid is under no tension, and that the above-described expulsive forces are quite inactive when an opening is made. Nevertheless the fluid passes out, and the pleural cavity may in a few minutes be completely emptied. The chief factors in producing this result are two in number—namely (1) the re-expansion of the retracted lung, and (2) the forcible elevation of the diaphragm by the contraction of the muscles in the anterior abdominal wall. The mechanism by which this is effected will be referred to later.

My own experience of empyema, on which the following observations are based, has been limited almost entirely to cases occurring in children, but I think that the conclusions drawn may equally well be applied in the case of adults. The usual operative treatment adopted has been to open the abscess after resection of a rib, to explore the pleural cavity with the finger, and, after washing it out, to insert a drainage-tube. This may be taken as representing the accepted surgical procedure of the present day. The observation and analysis of the phenomena present when the pleural cavity has been freely opened are of use in directing us as to the subsequent management of the case, to which I shall specially draw attention. Taking an ordinary case of uncomplicated empyema, while the patient is still breathing quietly, the first thing observed will be a slight flow of pus, soon to be interrupted by the gurgling of air from the outside into the pleural cavity as the patient inspires. This exit of pus alternating with the entrance of air may be repeated several times. Supposing next that a finger is introduced into the thoracic cavity and the condition of the lung examined, it will be found to be retracted towards the mediastinum and spine. The result of this manipulation of the lung will probably be an outburst of persistent coughing, and on the withdrawal of the exploring finger pus will be driven out of the chest with great force at each cough, until in a very short time the pleural cavity is emptied and obliterated and the lung has re-expanded up to the opening. It will thus be seen that the pus has been evacuated, not owing to the relief of tension or the falling-in of the surrounding parts, but by the re-expansion of the retracted lung through the mechanism of forced expiration. After an empyema has been opened the lung shows no tendency to expand as long as the patient is breathing quietly, and it is only when he holds his breath or expires forcibly or coughs that the lung begins to expand, owing to the air being driven into it from the sound lung. Mr. Godlee has stated that "it is quite impossible for the lung to be distended by any inspiratory efforts; this would be opposed to the laws of physics; and no suction power is available as long as there is a free opening into the chest."[4] This is undeniable, and he goes on to state that the only means by which the cavity can be closed is by the formation of adhesions between the costal and parietal pleuræ, which contract and gradually approximate the lung and chest wall. The lung, however, may be distended by expiratory efforts. If after a full inspiration the glottis is closed and the expiratory muscles on the sound side are powerfully contracted, air is driven out of the sound lung and not being able to escape through the glottis, is driven into the retracted lung, which soon becomes distended. The result is a closure of the cavity, as I have already stated, and this without any deformity either of the lung or of the chest wall. The subsequent management of the case is directed to the maintaining of full expansion in the lung, so as to prevent further pleural accumulation and also the formation of pleuritic adhesions in a partially retracted lung. In securing this object there are several methods at disposal, some of which act naturally and others which may be artificially employed.

1. The restoration of the circulation in the retracted lung. On the occurrence of pleuritic exudation the flow of blood through the retracting lung is much interfered with, and there is reason to believe that the re-expansion of the lung after operation is assisted and maintained by the freer circulation. Mr. Hodsdon[5] found by experiment that he could increase the volume of the lungs nearly 30 per cent. by circulating in them a mixture of defibrinated blood and saline solution.

2. Forced expiratory efforts on the part of the patient. In the case of children one is often struck, when examining the chest, by the length of the pause between inspiration and expiration. This "holding of the breath" is such a frequent phenomenon under normal conditions as to excite no surprise. The act is very serviceable, after an empyema has been opened, in driving air from the sound into the retracted lung and thus securing and maintaining its re-expansion. In the case of adults the same effect may be produced voluntarily with benefit. Crying, coughing and straining, as at stool, act in exactly the same manner.

3. The use of a drainage-tube with valvular action. It must be remembered that the principles of drainage as applied to an ordinary abscess cavity do not apply to an empyema. In the latter an important point is to prevent the ingress of air, not only because of the possibility of its containing germs, but also because the entrance of air leads to the retraction of the lung and the re-formation of a cavity in which pus may accumulate. Again, in the treatment of an ordinary abscess the surgeon introduces a long drainage-tube into the deepest part, so that the cavity may heal by "granulating up from the bottom," and the tube is shortened gradually as the sinus in which it lies becomes obliterated. In the case of empyema the result desired is entirely different. The tube should be long enough to enter the pleural cavity and no more, for a long tube will inevitably produce pleural irritation. The formation of granulation tissue with adhesions is undesirable as long as the tube is present, for this will lead to a fixation of the lung in a partially contracted position—after which full expansion cannot be expected—and fixation of the diaphragm to the costal pleura with consequent impairment of its action. The object is to prevent adhesions forming until the opening is closed and the lung is fully expanded again. Finally, in the case of empyema the site of the opening—an important point in the drainage of an ordinary abscess—may be selected quite apart from any considerations of drainage. The emptying of the pleural cavity, as I have tried to show, is due, not to the action of gravity, but to the forcible expulsion of the fluid by the expansion of the lung and the pushing upof the diaphragm. If these are secured the fluid will be driven out irrespectively of the position of the opening, and such arrangements as a dependent opening, or two openings, or two tubes are quite unnecessary. Dr. A. M. Phelps[6] has introduced and practised a method of valvular drainage designed to allow the free exit of pus and to prevent at the same time the entrance of any air. Of this method I have had no personal experience, but the principle is one which ought to be applied in the treatment of empyema, and which is fairly well carried out in the ordinary surgical dressing applied over the drainage-tube. On inspiration this will at once sink into the opening of the drainage-tube and at least partially close it by suction action.

4. The withdrawal of the drainage-tube as soon as possible. This will be admitted by all and will be understood by many as meaning the time when the discharge has ceased and the pleural cavity has been completely drained. This may be weeks or months after the operation, and the patient will probably have a contracted lung and a retracted chest, both more or less permanent in character. In Erichsen's treatise on Surgery the removal of the tube is referred to as follows: "When the discharge becomes purely serous and very small in amount the tube may at first

[4] Lectures on the Surgical Treatment of Empyema. THE LANCET, Jan. 9th, 1886.

[5] An Inquiry into the Method of the Cure of Empyema. Edinburgh Medical Journal, 1888, p. 496.

[6] Empyema and its Treatmen by Valvular Drainage. International Clinics, second series, vol. i., p.

be shortened till it is just long enough to retain its position. It is then forced out by the granulations or by the expanding lung. It is well to examine the cavity with a probe before removing the tube, as the space enclosed may be larger than would be supposed from the amount of discharge. So long as a distinct cavity remains the tube should be retained. In children, especially if the opening has not been deferred too long, the wound may be allowed to close after a month."[7] It seems to be more reasonable to regard the drainage-tube as a temporary exit for the pus, until the natural absorbent powers of the pleura, which have been in abeyance, are again in action and able to remove the superfluous secretion. If a drainage-tube has been for some time in use and the discharge continues, together with perhaps, some irregularity of temperature, it will often be found that both are caused by the irritation of the tube and that both will cease when the tube is left out and the opening is allowed to close. After operation the discharge from the pleural cavity is usually sero-purulent in character, the solid elements being lessened in amount and the fluid markedly increased as compared with the purulent matter originally evacuated. This later secretion, therefore, is much more easily absorbed through the pleura, provided that the chest wall and the lung are acting normally. As long as there is a drainage-tube present this cannot occur, for a certain amount of air is necessarily present in the pleural cavity, which prevents the regular and full expansion of the lung and impairs the freedom of movement in the chest wall. When the sero-purulent discharge, which at first is rather excessive in amount, begins markedly to diminish I think the drainage-tube ought to be removed and the wound in the chest allowed to heal as quickly as possible. Speaking generally, the third day after operation will be found a suitable time for the cessation of drainage by the tube. For a few days longer the chest wound will still remain open and allow of the escape of any superfluous secretion, and, when it has closed, the air remaining in the pleural cavity will be rapidly absorbed, and the restoration of respiratory movements on the affected side will prevent any reaccumulation of pleuritic exudation. No absolute rules can be laid down as to the exact day for removing the tube after operation. I do not think that the fact that the empyema has been present for a month or six weeks before treatment is, *per se*, an indication that the drainage must be prolonged; on the contrary, I have often found that in such cases all active changes in the pleura have ceased and that the discharge diminishes rapidly after operation. If there is great pleural thickening, or if the discharge is thick, or profuse, or septic, the tube must remain in longer than has been stated. A slight accumulation of pus at the site of the wound after the skin is healed is no indication for the reintroduction of a drainage-tube. The abscess is usually a local one, caused by the irritation of the tube, and will heal rapidly after being laid freely open.

5. The employment of artificial respiration. I have spoken of the restoration of respiratory movements in the lung and chest wall as necessary to secure a return to the normal condition of the pleura when exudation and absorption are equally balanced. It must be recognised that, as, during the period when the pleural cavity is occupied by fluid, the movement of the chest wall on that side is much diminished, so after the fluid has been removed some time must elapse before the normal movement is restored. This applies, I believe, both to the diaphragm and the intercostal muscles, partly owing to a prolonged period of inaction, and partly, probably, to a certain amount of inflammation in the muscular tissue, as already mentioned. Experimental evidence has shown that absorption through the pleura is much increased by performing forcible respiratory movements; as soon, therefore, as the chest wound is healed, artificial respiration by Silvester's method may be employed two or three times a day with great benefit, both in securing the expansion of the lung and chest wall and in preventing any further reaccumulation of fluid.

6. The use of chest-expanding exercises when the patient is convalescent. This is of importance, for the same reason that artificial respiration has been advised, but also for the prevention of any permanent chest deformity. In the latest statistics, those of Mr. Bernard Pitts,[8] on the after-condition of cases of empyema in children treated by resection of a rib, of twenty-six cases examined he found twelve in which there was permanent impairment on the affected side. Such cases are considered as cured from the operative point of view because the wound has healed and no reaccumulation of pus has occurred. The child is therefore sent home, and no further instructions about treatment are given. If the drainage has been prolonged the recovery as regards the lung and chest wall is seldom complete, and no treatment can make it so, although improvement may be obtained. Even if the lung has re-expanded well, and there is no apparent deformity of the chest, there are dangers ahead if the case is left entirely to nature. The act of inspiration is a struggle between two opposing forces—namely, the muscular power of the chest wall and diaphragm, on the one hand, and the elastic retraction of the lungs, on the other. In the normal condition the former is the stronger, and the lung has to yield—that is to say, it is expanded. Supposing, however, that the muscular powers are weakened or are not fully called into action, the lung elasticity will assert itself, and full expansion will not take place. This is the condition present after an empyema has been operated on and the patient has been sent home. Partly owing to the muscular weakness, already described, and partly to muscular inaction from a habit acquired by the patient during his illness of breathing chiefly with the sound lung, the chest wall on the affected side is not fully expanded, and the elastic traction of the lung draws in the surrounding parts. The result is seen in the spinal curvature, the flattening of the chest, and the drooping of the shoulder which appear, and sometimes in the development later of a fibroid condition in the lung. It is hardly necessary to state that the patient is in consequence injured both constitutionally and locally. In order to remedy, or rather to prevent, this condition it is necessary to strengthen artificially the weakened respiratory powers, and this is best secured by the employment of chest-expanding exercises. These must be regularly continued for weeks or months, and the patient should not pass from observation until the pulmonary condition is normal and the two sides of the chest are equal and symmetrical.

Carlton-hill, N.W.

[7] Science and Art of Surgery, ninth edition vol. ii., p. 727.

[8] Surgery of the Air Passages and Thorax. THE LANCET, Oct. 14th, 1893.

SOME POINTS IN THE ETIOLOGY OF CANCER.[1]

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THE chief questions presenting themselves for investigation in the study of cancer may be tabulated under the following seven heads.

1. *Theory of Cohnheim.*—Cohnheim took the broad view of growths in general; he watched the growth of the congenital tumour and observed that it frequently started from places where peculiarities of development were known to occur, and suggested that forces, some of which we may picture to ourselves as allied to those which occur at puberty and the menopause, acted upon these developmental freaks and started their growth. Examples may be seen in the branchiogenous epitheliomata, chondromata, dentigerous cysts, and warts. The tumours derived from the accessory thyroids and suprarenal rests and the numerous vestigial structures in the vicinity of the ovary. It is very difficult to persuade ourselves that these out of the way "rests" or remnants would have been especially signalled out by a locally acting irritant, be it parasitic or otherwise. The histological peculiarities of these congenital growths may be thus tabulated, and they are striking: (1) origin from a minute point; (2) architectural regularity; (3) encapsulation; (4) characteristic stroma; and (5) absence of leucocytic infiltration.

2. *Significance of metastasis.*—The secondary growths are stamped to a great extent with the characters of the primary; in the case of the epithelioma of the skin there may be the typical horny nests in the nearest lymphatic glands. The same repetition of structure is brought out in the remarkable cases of multiple thyroid tumours. A great deal, however, still remains to be done in order to make sure that we are dealing with true dissemination of the original growth. The spreading tumour, or secondary growth, causes atrophy of the surrounding structures; it does not infect them or possess

[1] A paper read at a meeting of the Brighton Medico-Chirurgical Society held on Dec. 7th, 1893.

any "spermatic" influence over them so far as we are aware. The secondary growth is a graft of the primary; compared with the microbic granulomata, it is here a question of the living bacillus setting up new tissue reactions wherever it lodges; it is not the reaction of tissue or tumour produced by the bacillus which is comparable to the cancer graft; it is rather the living cancer cell itself which is locally multiplying that is comparable to the bacillus—indeed, the reaction produced in the tissues by the cancer cell is often quite similar to that produced by a bacillus or other foreign parasite. In the cancer cell, as in the bacillus, the property of multiplication resides, only it is assumed by some that in the former a something foreign resides—a parasite—which stimulates it to growth.

3 *Relationship of irritation to cancer.*—This relationship is surely established, much being due to Thiersch, Suchard, Volkmann, Butlin, and others. Examples are the skin cancers in the case of soot-sifting, tar and paraffin working, in lupus and syphilis. Further, most important examples are furnished by the precancerous conditions—psoriasis lingualis, psoriasis laryngis, seborrhœa senilis, &c—and the cancers starting in the lung, stomach, liver, kidney, breast, &c., in chronic inflammatory conditions of those organs. Animal parasites may arouse by their long irritating presence precancerous and even cancerous changes, just as in the case of the pipe and lip carcinoma; examples may be seen in the case of coccidia, distoma, bilharzia, and even echinococcus. In none of these cases are we in a position to state how the long-standing irritation producing at first a reactive hyperplasia, finally leads to malignant overgrowth. There is no evidence. The irritation tumours are thus characterised: (*a*) wide origin, (*b*) irregularity and (*c*) production of considerable tissue reaction around them, such as the formation of granulation and scar tissue and leucocytic migration.

4. *Significance of multiple primary carcinomata.*—The multiple primary carcinomata may be divided into two classes: (*a*) those of the same type, arising in the same organ, as in the breast, skin, stomach &c., and (*b*) those of different types, arising primarily in different organs. In the first class may be included the so-called "cancers by contact." There are very numerous examples of multiple primary cancers, and that this is so will be readily understood from the last section on the relationship of irritation to neoplasis. Thus a wide area is affected by the precancerous change and from more than one point in that area a cancer proceeds. This explains a bilateral carcinoma of the tongue following psoriasis linguæ. Its significance is perhaps the most important of all from a surgical standpoint. It was long ago pointed out by Langhans that cancer of the breast may originate at many points; it may originate primarily in both breasts. The meaning of this is seen, for instance, where a tumour is completely removed, so-called "recurrence" taking place months or years afterwards, not from cancer tissue which was left behind, but from epithelium which was precancerous (local predisposition of Thiersch). The tumour and the conditions around in which the *Krankheit-erreger* flourish must be removed. A large number of the "cancers by contact" are readily explained by the precancerous change,[2] and the rest by complex metastasis.

5 *Significance of inoculation experiments.*—The experiments of Novinsky, Wehr, Hanau, Klebs and others only demonstrate that grafting may be performed. They are, however, exceedingly interesting and of wide-reaching importance. The graft of normal tissue, in the majority of cases, atrophies; the cancer graft may increase.

6. *The significance of cultivation experiments.*—The results of these experiments prove very little.

7 *Nature and significance of the appearances found in cancer cells.*—This very interesting side of cancer has been taken up with much vigour, and both the nucleus and the cell contents have attracted much careful attention. Laveran's corpuscle and the coccidium of the rabbit have done much towards turning the attention of observers to the presence of animal parasites in cancers. Animal parasites are now coming to occupy their important place in pathology: we need only mention surrah, amœba, and plasmodium malariæ. Very much has been written, the last set of observers very often contradicting the first set; it is thus in molluscum contagiosum and Paget's disease. More careful work has, however, demonstrated numerous irregularities in the cancer nucleus, increase and decrease of nuclear substance, fragmentation, &c. In the cancer cell itself numerous perinuclear bodies have been described, striking enough to be considered by some most careful workers as genuine parasites and by others explained away as derivatives of the nucleus—endogenous cells. The photographs (exhibited) show that it is not an easy question to solve; there is no reason why parasites like bacilli should not be present in cancer, and it will be a great gain for those who succeed in placing it beyond doubt that we are dealing with parasites.

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[2] Bucher, 1893.

TRAUMATIC SUBACUTE PERITONITIS AND CYSTS OF THE PANCREAS.

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IN THE LANCET of Jan. 6th Mr. Walter H. Brown records a case of cyst of the pancreas associated with sanguineous peritoneal effusion. The association is interesting, and should it in future prove to be not uncommon will render the pathology of pancreatic cysts still more obscure. A somewhat similar case recorded last year by Mr. Angus Martin of North Shields and Mr. Rutherford Morison of Edinburgh has apparently been overlooked by Mr. Brown.[1]

A boy aged seventeen years was on March 1st, 1893, crushed between a wall and a cart. Peritonitis followed, and five weeks later fluid was removed from the peritoneal cavity by Mr. Martin by abdominal section. Shortly afterwards a tumour was discovered in the epigastrium. This was opened and drained by Mr. Morison, when about two quarts of fluid escaped from the peritoneal cavity before the cyst was attacked. The fluid from the cyst gave evidence of connexion with the pancreas. In this case and in that under Mr. Brown's care peritonitis followed injury and was associated with a cyst connected with the pancreas. In a paper in the Guy's Hospital Reports for 1892[2] I have given reasons for believing that so-called pancreatic cysts are sanguineous effusions between the layers of the transverse mesocolon. The case quoted above (as reported in the *Edinburgh Medical Journal*) leaves little room for doubt that the encysted collection of fluid was in that situation. The fluid, however, so far as can be judged from the report, did not give any definite evidence of having commenced as a blood effusion. In this it differs from the majority of the reported cases of pancreatic cyst. Possibly in this case and in a few others the entrance of secretions from the pancreas digested and led to the absorption of the primary blood constituents. In Mr. Brown's case, on the other hand, the fluid removed from the cyst was blood free from digestive ferments, which ferments, however, afterwards appeared in the fluid discharged from the sinus left by the operation. In the two cases of which I have been speaking, are we to consider that the injury was directly responsible for both the peritonitis and the cysts connected with the pancreas? Mr. Brown evidently thinks that damage to the pancreas explained the appearance of the cyst in his case and thus adopts the generally accepted theory as to the production of traumatic cysts of the pancreas. Pancreatic cysts have very frequently followed an injury, and it has perhaps been somewhat hastily assumed that these cysts must have originated in a direct injury to the pancreas. There are, however, one or two points that militate against such a view. Firstly, the pancreas is by its situation protected from injury; secondly, the cyst does not usually develop quickly after traumatism, but appears somewhat suddenly at the end of several weeks, months, or even years; thirdly, some sanguineous abdominal cysts, that have developed after an injury, have been proved on post-mortem examination to have no connexion with the pancreas. Only the first of the above points—namely, the situation of the pancreas—will be further considered. The gland lies close under the liver, and a great part of it is behind and to the left of the left costal margin. It is true that the head of the gland lies in the epigastrium

[1] Edinburgh Medical Journal, July, 1893.
[2] Peritoneal Sanguineous Cysts, their Relation to Cysts of the Pancreas.

and in front of the vertebral column, but though uncovered by ribs it is well protected by the surrounding structures; behind the gland rests on fluid cushions formed by the aorta, vena cava, and numerous lymphatic vessels; around it is the duodenum, which, when distended, projects beyond it; in front is the lowest part of the stomach, rarely entirely free from food; while still further in front the lower part of the right lobe of the liver partly covers it, and last, but not least, are the thick recti muscles. I will consider for a minute the effect of a blow from a broad object, such as the buffer of a locomotive, as in Mr. Brown's case. If the blow were direct, resistance would be offered by the lower portion of the chest, and the ribs would probably have to give way before the spinal column could be reached. Were it possible for the ribs to bend sufficiently the liver would be doubled up by such a blow, and would be far more likely to suffer than the pancreas. If the body were inclined backwards, and the blow consequently obliquely upwards, a lower lumbar vertebra would be struck before the pancreas could be injured. But while the head of the pancreas is most exposed, it is with the tail of the gland that cysts are generally connected, and it would be an impossibility to injure that portion of the pancreas by means of an object like the buffer of a locomotive. Not only is the tail of the pancreas to the left of the costal margin, but it turns backwards from the head, so that the spinal column would be struck before the gland could be squeezed against the kidney and its bloodvessels. In connexion with the second point, I may refer to one case, which is interesting as regards the discussion of the effect of a buffer accident. In that case a squeeze between two railway waggons was followed at the end of a year by the appearance of a cyst that contained chocolate-coloured fluid, obviously blood.[3] Here a cyst, supposed to be connected with the pancreas, although sanguineous, did not appear until a year after the injury. The third point mentioned was that sanguineous cysts which are unconnected with the pancreas may follow at an interval after an injury.[4] In one case such a cyst developed in front of the right kidney, in another in the small omentum. Two years had elapsed between the appearance of the cyst and the injury in the former, and six months in the latter. The reader will naturally ask, if pancreatic cysts are not directly due to injury of the gland, in what way does that injury act, it being allowed that the connexion with injury is indisputable? I have suggested through the nervous system.[5] This may seem unreasonably hypothetical, but the following are a few points in favour of it: firstly, the symmetry of hæmorrhages that occasionally destroy the supra-renal capsules suggests that a central cause is responsible for those hæmorrhages; secondly, hæmorrhage into the pancreas is frequently accompanied by spots of fat necrosis over the peritoneum, which it is most reasonable to conclude are trophic in nature, as suggested by Dr. Rolleston; thirdly, a peripheral injury may give rise to a central nervous lesion, as is sometimes the case in paralysis agitans and progressive muscular atrophy. Fourthly, the taking of one's wind by a blow in "the pit of the stomach" reveals a peculiar sensitiveness of the nervous system connected with the epigastrium to peripheral impressions. In connexion with the second point I may briefly refer to a case brought before the Pathological Society of London, on Oct 18th, 1892, by Dr. Rolleston. A man who had been knocked down by a cart, which passed over his abdomen, suffered from repeated attacks of abdominal pain. A year and a half after the accident he was seized with severe abdominal pain and vomiting. He was supposed to be suffering from intestinal obstruction and laparotomy was performed. At the post-mortem examination hæmorrhage was found around the pancreas, and numerous spots of fat necrosis over the peritoneum. Dr. Rolleston thought that the hæmorrhage around the pancreas caused disturbance of the sympathetic system, which led to trophic changes in the peritoneum, but it seems more probable that the original injury gave rise to a nerve lesion, which manifested its presence by abdominal pain, and finally led to hæmorrhage in the neighbourhood of the pancreas and to fat necrosis. I regard pancreatic cysts merely as manifestations of hæmorrhage around the pancreas, which may arise in the gland itself or in its neighbourhood and affect the gland secondarily by pressure. The main seat of the hæmorrhage appears to be usually the transverse mesocolon. The history of many cases is precisely the same as the case just mentioned. There is an injury, followed by a period of abdominal pain, and finally the sudden appearance of a cyst which is found to contain blood. Although I have thus suggested that the effect of injury in the production of pancreatic cysts is indirect, I should not like to extend that view to the peritonitis that has accompanied the cysts in the two cases to which I have specially referred. Probably the association was a mere coincidence. Some lesion of the peritoneum may have led to the escape of a small quantity of blood not sufficient in amount to set up more acute peritonitis. An interesting case of subacute peritonitis following injury is recorded by Mr. Edmund Owen.[6]

Clifton, Bristol.

[3] Steele: Chicago Medical Journal, April, 1885.

[4] Vide Bulletin de la Société Anatomique, 1885, p. 59, and L'Union Médicale, 1877, vol. xliv., p. 82.

[5] Guy's Hospital Reports, 1892.

[6] THE LANCET, Oct. 22nd, 1892.

"ANOREXIA NERVOSA."

BY W. J. COLLINS, M.D., M.S., B.Sc., D.P.H. LOND.,
FELLOW OF THE UNIVERSITY OF LONDON.

THE last contribution to medical literature made by Sir William Gull was a brief note under the above title.[1] It was the case of a girl fourteen years of age who exhibited a morbid aversion to food and who was reduced to a skeleton, but after six weeks' rational nursing and treatment she was restored to health and plumpness. A case strikingly similar to this has recently been under my care.

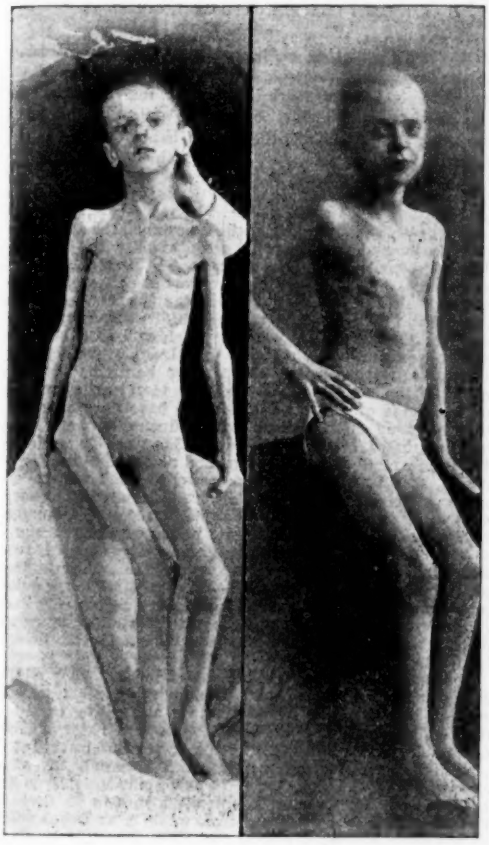
A girl seven and a half years old, of healthy ancestry, had for ten weeks prior to her admission to the London Temperance Hospital persistently refused food and had only partaken of very small quantities after much coaxing. She had attended for some time at a children's hospital for nervous debility, but latterly had remained at home, lying doubled up in bed, an object of compassion to her friends and neighbours, who anticipated her early demise. On admission to hospital in September, 1893, her skin was dirty and she was infested with pediculi; the emaciation was extreme. The legs and thighs were rigidly flexed, and any manipulation evoked tenderness and tears. The joints, however, were unaffected and the reflexes were normal. Her weight was 2st. 5lb. The circumference of the chest was 20¾ in., and of the abdomen 18½ in. at the umbilical level; the upper arm measured a little over 4 in. around, and the legs 5¼ in. All the organs and excretions were normal, but some defined swelling and tenderness were noticeable over the outer part of the left thigh. More remarkable, however, were the mental phenomena, which I requested the sister of the ward to specially observe and to notify to me. The child was reported to be very deceitful and intensely selfish; she took no notice of the other children in the ward, was self-absorbed, very vain, and "told long stories of other people who had been ill just like her and what terrible things happened to them." She asked for the Bible, as she cared for no other book, and she was effusively pious in conversation, though she used foul language to the nurses and was filthy in her habits. At first it was difficult to feed her, and she concealed her food in the bed; she expressed herself as not wishing to improve—her friends, she said, despaired of her, called her a "poor thing," and could not bear to look at her.

Such is the picture of the perverted *ego* in this and other cases of the kind, at once the cause of the anorexia and the central feature of this curious ailment—a gloomy self-concentration, which seems to extract a morbid vanity from the compassion evoked by bodily misery, coupled with a spurious piety. The temperature was generally raised, and later an abscess was opened in the left thigh; the wound healed rapidly. Massage with neat's-foot oil, a copious dietary, cod-liver oil, and some liquor pancreaticus constituted the physical treatment. Her condition immediately began to improve, and with increasing weight and the restored use of her limbs her mental and moral state completely changed. By Nov. 1st she weighed 3st. 2lb., and the sister's last report was that "she played with the other children, seemed interested in everything in the ward, was easily manageable; a very amusing, bright, clever child, always smiling and anxious to be helpful." The illustrations, from photographs taken after an interval of nine weeks, are the best evidence of the change that had taken place.

Besides the case mentioned above, Sir William Gull

[1] THE LANCET, March 17th, 1868.

published other cases.[2] In these, as in some earlier ones referred to in 1868, the patients were young women or girls, the ages being fifteen, sixteen, seventeen, eighteen, and twenty-three years, though Sir William Gull stated that he had seen the same thing in males. In one fatal case there was nothing morbid discovered post mortem except thrombosis of the femoral veins, causing œdema of the legs. Laségue[3] refers to a similar condition of things under the term *anorexie hystérique*, based upon 8 cases, all females, whose ages ranged from eighteen to thirty-two years. Sir William Gull originally employed the term "apepsia hysterica," but deferred to Laségue, although both agreed that the cause was primarily mental and presumably of cerebral origin. In this case Sir William Gull's nomenclature was less felicitous and prophetic than in the case of myxœdema, which he from the first described as "cretinoid." Nandeau[4] relates a case of "une maladie nerveuse accompagnée d'un dégoût extraordinaire pour les alimens," which is presumably of the



same nature. The "pica" of pregnancy no doubt has some affinity to this condition. Lastly, the case of the Welsh fasting girl and other notorious cases of a quasi-religious kind may well have had the morbid mental basis observed in anorexia nervosa; but owing to the relatively recent recognition of moral insanity the neurotic element escaped attention. The case I now record appears to be that of the youngest patient of the kind on record, she being only seven and a half years old, and it may seem strange to speak of morbid egotism at such an early age. In this relation, however, I would refer to a case I published some years ago of feigned monocular blindness in a girl nine years of age.[5] In this case it was proved beyond doubt that the child could see with the eye which she obstinately insisted was blind; "her mother repudiated the suggestion of deceit and protested that if her other eye were covered she could not find her way by herself. This done, she did not fall over or encounter any obstacle, but waved her hand feelingly in front of her and skulked along, keeping a sharp look-out with the 'blind' eye on those watching her."

Albert-terrace, Regent's-park, N.W.

[2] Transactions of the Clinical Society, vol. vii, 1874.
[3] Archives Générales de Médecine, Avril, 1873.
[4] Journal de Médecine, 1789.
[5] Royal London Ophthalmic Hospital Reports, vol. xi., part 3.

CONSIDERATIONS ON GASTRIC ULCER.

BY J. PORTER PARKINSON, M.D. LOND., F.R.C.S. ENG.

IN this short paper I propose to deal with some facts and deductions concerning gastric ulcer. As regards its very frequent latency and cure, Grünfeldt in 450 necropsies on persons of both sexes aged from sixty years and upwards found in ninety-two cases the scars of cicatrised ulcers of the stomach. This gives a frequency of one person in five, which frequent occurrence is certainly not diagnosed—for instance, amongst 5000 medical in-patients of University College Hospital I can find only sixty-two cases of gastric ulcer, or about 1·24 per cent. Of course these only represent the severer cases, but of that number only eight died, though the mortality of gastric ulcer is about 4 per cent. of the total mortality. These facts seem to show that ulcer of the stomach is an exceedingly frequent disease, often causing no characteristic symptoms, and I believe that many of the intractable cases of dyspepsia that are treated as chronic gastritis really have this lesion as their starting point. In some there is a clear history of hæmatemesis, and the characteristic localised pain in the epigastrium shooting through to the back is present. Such cases are no doubt clear enough, but other cases are more obscure. The slowness of gastric ulcers to cicatrise is a well-known fact, but when gastric symptoms have ceased to exist for some years one usually expects a cure to have taken place. But what is the after-history of these patients? I believe that the cicatrix may break down from time to time under injudicious irritating diet just as badly healed ulcers of the leg do when irritated; and even without the scar itself breaking down the surrounding gastric epithelium may be more prone than usual to inflame under irritation. Jaworski has described widespread, small-celled infiltration into the epithelium and inter-glandular tissue of the submucous layer, which lesion would cause a tendency to further inflammation. Rosenheim says that progressive pernicious anæmia and vomiting and epigastric pain are sequelæ of ulcer of the stomach, but I cannot discover any mention of other sequelæ. I frequently see middle-aged women suffering from gastric irritation, often with severe localised pain in the epigastrium, extending through to the back, in whom there is a distinct history of ulcer. They complain of flatulence, acidity, &c., coming on an hour or two after food, and always suffer from constipation, but the symptoms are not much relieved by purgation alone. The tongue is coated with thin white fur at the centre, the papillæ of the tip and edges being enlarged. The expression has that drawn, anxious look so often seen in patients suffering from ulcer.

Mrs. ——, forty-seven years of age, seven years ago had an attack of hæmatemesis (losing about two pints of blood) after having suffered for some months from typical symptoms of gastric ulcer. Under rest and nutrient enemata she recovered and had no stomach symptoms of any importance till January, 1893, when, having been anæmic and out of health for some time, she was seized, after a dietetic indiscretion, with severe pain in the region of the stomach and frequent vomiting; the symptoms speedily subsided and were becoming insignificant when she was again suddenly seized with similar symptoms owing to resuming too soon her ordinary diet. The pain, which was almost constant, was most severe just to the left of the ensiform cartilage, but there was a duller pain over the whole of the left hypochondrium. She also experienced pain in the back. The tongue was thinly coated and the bowels were confined. There was frequent vomiting, excited even by teaspoonfuls of milk and lime-water, the fluid vomited being almost transparent and containing no free hydrochloric acid, but traces of lactic and butyric acids. There was no bile, but a few sarcinæ and other micrococci were present. She was treated by nutrient enemata, with ice to suck. The bowels having been thoroughly cleared, she was soon able to take

light food by the mouth. Later she was given bi-palatinoids of carbonate of potash and iron, both of which are indicated in these cases. In certain districts of the Rhön mountains and the Bavarian Alps, in which the inhabitants are mostly vegetarians, gastric ulcer is very uncommon, and vegetarian diet gives to the system a large amount of potassium salts. I think that in this patient the healed cicatrix of an old ulcer had partly broken down and caused a renewal of symptoms; I know of very many cases with a similar history. I therefore venture to suggest that perhaps in many cases of so-called simple irritative dyspepsia such a lesion is present though the ulcer may have hitherto been latent. There is another point to mention—viz., the absence of free hydrochloric acid in the vomited matters—and this is generally observed in cancer of the stomach, but lately it has been shown to occur in about one-third of the cases of ulcer, and so its diagnostic significance is but slight.

Broadhurst-gardens, N.W.

RAPID SUPERVENTION OF SYMPTOMS OF POISONING FOLLOWING THE APPLICATION OF A BELLADONNA PLASTER.

BY WILLIAM J. HOWARTH, M.D. VICT.,
LATE HOUSE SURGEON AT THE ROYAL INFIRMARY, MANCHESTER, AND LOUGHBOROUGH INFIRMARY AND DISPENSARY.

THE following notes of a case of poisoning by belladonna appear to be worthy of record on account of the extreme rapidity with which the symptoms followed the application of a belladonna plaster to the lumbar region.

A man aged fifty-seven years, on Dec. 13th, 1893, after a powerful stroke with a pickaxe while at work as a gardener, experienced a sharp stabbing pain in the loins. He had some difficulty in moving after it, but friction with mustard oil gave him some relief. He suggested the application of a belladonna plaster, and one about six inches by four inches in size was procured and applied over the surface, which had been rendered hyperæmic by the stimulating oil. He then proceeded to walk home, a distance of about two miles and a half. He could only walk slowly, and in about three-quarters of an hour he noticed that his mouth was becoming dry and his tongue dry and swollen. The skin under the plaster felt very cold, and there was a peculiar numbness in his hands and feet. This increased so much in intensity that he hardly knew when his feet touched the ground, and at the same time the power of moving his legs became more feeble; consequently, he had much difficulty in "guiding his steps." He began to feel "dizzy," and noticed that the lights in the shop windows seemed to flicker. Everything he looked at was streaked with lines, alternating black and white in colour, and each appeared to be about a quarter of an inch in thickness. Later his sight began to grow dim and his mind became very confused. He arrived home in about an hour and a quarter, and after having vomited he became quite unconscious, having no recollection of anything which took place until 4 A.M. I saw him about an hour later, and found his pupils widely dilated and not reacting to light. His breathing was somewhat hurried and deep. The lips were apparently very dry and the tongue dry and coated. There was delirium, incoherent and muttering, and of an amused type; he frequently burst out laughing in quite a hearty manner. The pulse was 70 per minute (usually it is about 55). The tendon reflexes were very pronounced. Muscular power was very feeble; he was quite unable to change his position. The facial muscles and fingers frequently twitched. Having been informed that he had on a belladonna plaster it was removed, and the plaster still adhering to the skin was cleaned with olive oil and afterwards well washed. There was no abrasion of the skin under the plaster, but it was markedly hyperæmic from the previous vigorous treatment. I then gave him half a grain of the extract of physostigma about 5.30 P.M., and repeated it twice at intervals of two hours. About 3 A.M. (twelve hours after the application of the plaster) he commenced to perspire very freely, and discharged a copious amount of urine—none having been passed previously to this—when all the symptoms rapidly improved, so that by 12 noon on the next day he seemed to be almost well again, complaining only of weakness in the legs. The dryness of the mouth and the swollen condition of the tongue had quite disappeared, the reflexes were not nearly so pronounced, and the pulse-rate was about 60 per minute. The pupil remained dilated and sluggish, and only assumed its normal condition after three days.

Pendlebury, Manchester.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON THE VALUE OF COUGHING-TAXIS IN THE REDUCTION OF HERNIA.

BY GEORGE WHERRY, M.B. CAMB., F.R.C.S. ENG., &c.,
UNIVERSITY LECTURER ON SURGERY, CAMBRIDGE.

THAT cough which so often produces a hernial protrusion may be used with the greatest advantage during reduction. The abdominal parts concerned are in the most favourable position for reduction of hernia while the patient is coughing; the taxis should then be applied by careful fingers after the following method. On beginning the attempt at reduction the surgeon places himself and his patient in the most comfortable and favourable position for gentle continuous manipulations; the patient should be recumbent, with the buttocks rather raised and the thigh flexed on the abdomen, while the surgeon would usually prefer to sit by the bedside. During the whole of the time that taxis is used the patient must cough, only stopping for rest or retching; the operator's efforts should be continuous even during these pauses, and his gentle but firmly applied pressure will be aided by every cough of the patient; also during retching I have thought some advantage has been gained. In this method the sensation to the surgeon is that the hernia is reduced rather by the coughing of the patient than by the working of the fingers of the manipulator. I have during several years past so often succeeded in reducing herniæ of all varieties that I can strongly advise this plan, feeling sure that it only requires to be known and practised to be appreciated. The last case which occurred to me I was called to see at the hospital at two o'clock in the morning, "very cross and dogged," as the spiritual Diarist records. I found a middle-aged woman with a femoral hernia with urgent signs of strangulation. She had been under the care of two medical men, who had, with taxis, used chloroform. The patient coughed during ten or fifteen minutes while my quite gentle but continuous taxis was used; the hernia was first gradually reduced in bulk, and the last little button returned with a jump into the abdominal cavity. A good recovery followed.

The finger placed in the healthy abdominal ring while coughing is practised by the person under examination will enable the operator to realise that the alternating contractions and relaxations of the boundaries of the ring are most favourable for the return of a hernia if pressure be skilfully practised. In commending this plan I have only my own experience to go upon, but it is now sufficiently large to enable me to express myself with confidence in its favour. Coughing-taxis as well as tussio-taxis would be a name as good as any other hyphened hybrid for this manœuvre, which I hope may prove as useful in other hands as it has done in mine.

Cambridge.

ACUTE ABSCESS OF THE LEFT FRONTAL SINUS SIMULATING ORBITAL CELLULITIS.

BY M. P. MAYO COLLIER, M.S. LOND., F.R.C.S. ENG.,
VICE-PRESIDENT OF THE BRITISH LARYNGOLOGICAL ASSOCIATION ETC.

A YOUTH nineteen years of age came to the North-West London Hospital in August last complaining of severe pain and swelling in the left orbit. He had suffered from two previous attacks, but neither of them had been so severe as the present one. The patient was suffering intense pain in the frontal region, and his temperature, as taken in the out-patients' room, was 103° F. On a closer examination of the

parts the eye was protruded and displaced downwards and outwards, but its function was not much interfered with. There were much redness and swelling of the tissues surrounding the eye, extending to the forehead as far as the region of the frontal sinuses. Pressure on the left frontal sinus caused severe pain. On palpating the upper and inner segment of the orbit an elastic resistance somewhat undefined could be made out; this was apparently immovable and situated deep in the orbital roof. The mouth was constantly kept open, and there was a history of snoring and restless nights for many years, with dry, parched, and foul tongue on awakening in the morning. The patient was evidently distressingly "hard of hearing." On examining the nose almost complete obstruction on both sides was apparent from hypertrophic rhinitis of many years' standing. The post-nasal space was blocked by several large sessile growths. As further evidence of long, chronic, unrelieved nasal obstruction the palate was very highly arched, being at least three inches above the level of the teeth. The teeth were also irregular, and the alveolar arches were crowded towards the mid-line. The boy's intellect was decidedly impaired and his expression was fatuous and vacant. After the examination of the nose and throat little doubt was entertained that the trouble was to be found in the frontal sinus. The patient was sent to bed and warm fomentations of lead and opium were applied to the parts. After a calomel purgative had been taken aconite and morphia were administered internally. In the night the temperature rose to 104·5° and was accompanied by a prolonged rigor. It was decided in the morning to cut down upon the swelling and, if necessary, to trephine the frontal sinus if no opening should be found in the roof of the orbit. An incision was made and pus evacuated. On a close examination of the wall of the orbit an extremely small opening just large enough to admit a probe was discovered behind the pulley of the superior oblique muscle. This led into a suppurating and denuded frontal sinus. The opening was enlarged and the normal passage into the nose re-established. A drainage-tube was next brought out through the nostril, and the parts cleaned and drained. All the more severe symptoms ceased from the moment of the operation, and the patient is still under observation with a view to treating the nasal obstruction, the original cause of all his troubles.

Harley-street, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

MIDDLESEX HOSPITAL.

A CASE OF HYDRONEPHROSIS; NEPHRECTOMY; RECOVERY.—A CASE OF TETANUS; RECOVERY.

(Under the care of Mr. HENRY MORRIS.)

MR. HENRY MORRIS has pointed out in his book on the Surgery of the Kidneys that the proportion of cases in which hydronephrosis produces a palpable abdominal tumour is very small compared with the frequency of hydronephrosis as it is seen on the post-mortem room table. It will be evident in reading the account of the following case that there was reason for regarding the disease as probably secondary to a calculus, although repeated examination failed to give proof of its presence. In Dr. Roberts' table of causes of hydronephrosis referred to by Mr. Morris in his book of thirty-two cases eleven were ascribed to the impaction of a calculus, in three others this was the probable cause, whilst in five the condition was due to a narrowing of the ureter by inflammation or ulceration.

In accordance with our opinion that cases of tetanus should be recorded when they have been successfully treated, we give this week the account of a traumatic case. It is doubtful how much of the success of the treatment was due to the administration of the extract of physostigma, for a good deal of chloral hydrate was also given by the mouth during the progress of the case. If we review the records of successful cases, we find that chloral hydrate has been the drug most frequently employed, and there is a long list of eminent names in support of its being the most satisfactory drug, whether administered alone or in combination with bromide of potassium. Many who have tried ths extract of physostigma have been disappointed with it, but Mrleit, Wilkins, Ward, Watson, and a few others have recorded recoveries of patients placed under its influence. It is probable that antitoxine will be largely tried in the future. For the notes of these cases we are indebted to Mr. G. H. B. Berkeley, house surgeon.

CASE 1.—A boy seven years of age was admitted to the Middlesex Hospital under the care of Mr. Morris in 1892, supposed to have renal calculus, and he was under observation in the hospital from Nov. 18th to Dec. 28th of that year, during which time he did not complain of pain or any other trouble. When admitted there was a very slight quantity of blood and pus in his urine. It was stated that he had passed blood in his urine frequently during the previous twelve months, but at irregular intervals. He never had any pain whatever. His bladder was examined with a sound under chloroform, but with negative results. Both kidneys were examined bimanually, but nothing abnormal was made out. On leaving the hospital his urine was free from any trace of albumen, pus, or blood.

The patient was readmitted on Jan. 10th, 1893. It was stated that on Jan. 9th his father gave him a whipping across the loins. He had felt a pain like the prick of a pin for a day or so previously in the right loin. On the morning after the whipping his urine was seen to be blood-stained, and when examined at the hospital it was found to contain blood in large quantities and a microscopical amount of pus; sp. gr. 1028, acid.

The patient was anæsthetised on Jan. 13th, and the bladder sounded, but with the same negative results as before. An incision was made four inches long in the right loin. Another incision was then made in the centre of the first and at right angles to it two inches long. The kidney was drawn out on to the loin and was found to be slightly enlarged, flabby, and sacculated. An incision was made into its convex border, but no stone could be felt either in the renal substance or the pelvis. A large probe passed for about seven inches into the ureter gave a negative result. The pedicle of the kidney was transfixed with kangaroo tendon and the vessels and ureter were tied in separate loops. The kidney was then cut off and the pedicle dropped back into the abdominal cavity. The fascia and muscles were sutured, layer by layer, with buried catgut sutures. The skin incision was united by silk sutures, a small drainage-tube being inserted and dry dressings applied.

Examination of the kidney.—Towards the tip of the organ there was attached a portion of the cortex of the supra-renal capsule. The kidney itself was only slightly enlarged; the capsule stripped readily and exposed a smooth, cortical surface. On section there was seen to be a marked degree of hydro-nephrosis, the whole of the medullary portion having disappeared; the cortical tissue was likewise thinned and reduced to a mere layer. The infundibulum of the ureter was greatly dilated; its mucous membrane was much injected and its walls were considerably thickened.

The urine drawn off after the operation was found to contain more blood and to be loaded with lithates. The succeeding four specimens were much lighter in colour. Eleven hours after the operation there were a trace of albumen, a few blood corpuscles, and an occasional pus cell. Twenty hours after the operation there was no reaction for blood or albumen; lithates were present, but no pus. The patient did very well after the operation. The wound was dressed and the drainage-tube taken out on Jan. 17th, and the stitches were removed on the 20th. The quantity of urine passed had kept about the same throughout, being between twenty and twenty-six ounces. It was quite clear; a few blood and pus corpuscles could be made out microscopically. On Feb. 1st the patient was anæsthetised and his bladder sounded, with negative results. This was done because it was thought possible that a stone, if impacted in the lower end of the ureter, might have become displaced and passed on into the bladder by the traction used at the operation. He left the hospital on March 8th. He has been seen at the hospital at intervals since and on each occasion he looked the picture of health; he has had

no pain and his urine had remained quite clear. The last examination of the urine gave—sp. gr. 1020, acid, with no chemical reaction for albumen, pus, or blood. Microscopically it showed oxalates and a very few pus cells. On Dec. 15th, 1893, Mr. Louis E. L. Beer wrote: "The patient has been under my observation since he left the hospital after the operation. His general health has been excellent; in fact, I have never known him to be so well. Occasionally his friends have been alarmed by deposits in his urine; these, however, have consisted of urates more rarely mixed with phosphates, but never with blood or pus. I have never found any albumen." On leaving the hospital his parents were told to give him an alkali water to drink if the urine became very acid or loaded with pink deposit, and his father says he has done this, the mineral water being taken twice daily at intervals.

Remarks by Mr. MORRIS.—This was the youngest patient upon whom I had at that time operated for hydronephrosis and the youngest I have ever nephrectomised; but I have since performed double lumbar nephrotomy for congenital hydronephrosis, operating at the twenty-second hour after birth. The child is now, several weeks after the operation, still living and passing all its urine through the lumbar fistulæ. It is impossible to state what was the cause of the hydronephrosis in this boy: whether it was a contraction of the ureter after the passage of a stone, or the lodgment of a calculus in the tube. The occasional passage of blood might lead one to suppose that the ureter must have been clear immediately before and after the operation; but experience has taught me that this is not so. A calculus may be fixed in the ureter and give rise to much, but not to complete, obstruction, and thus pus and blood, even in large quantities, may reach the bladder from the kidney by passing on their way the impacted stone.

CASE 2.—A man twenty-two years of age was admitted into the Middlesex Hospital on May 14th, 1893. He had fallen against the wheel of a traction engine and his left knee was injured. The parts around the knee-joint were very swollen and painful, and there was considerable effusion into the joint. On the inner side of the patella there was an oval wound two inches by one inch and one-eighth, and the skin was destroyed over this area. Above the patella the skin was destroyed for two inches. Over the region of the tubercle of the tibia an area three inches by two inches was devoid of skin, and the skin bordering the wound was undermined for about three inches. The wounds were most thoroughly irrigated with perchloride of mercury (1 in 2000). The injured parts were covered with a cold mercury compress and the leg put up on a back splint with foot-piece. The wounds looking dirty and the inguinal glands being inflamed, the above treatment was changed next day to carrot poultices. A day or two later, the parts around the knee-joint being swollen and inflamed, an incision was made over the outer part of the joint and a large quantity of fetid pus and sloughing cellular tissue escaped. Carbolic fomentations were then applied, and by May 29th the wounds were nearly healed, except superficially. About this time the patient began to complain of his jaw being stiff, and the glands under the rami became swollen; and on June 1st he could not open his mouth at all well.

June 3rd.—The patient has pain about the jaw, he can only open his mouth half an inch, and he has had clonic spasms in his injured leg occasionally yesterday and to-day. The temporal and masseter muscles are hard. He was given ten grains of chloral hydrate every four hours, and opium fomentations were applied to the knee.

7th.—For the last day or so he has appeared to be a little better, but to-day he is much worse again. His abdominal muscles are hard, and his back is very painful. The patient now suffers from violent attacks of spasm, causing him to shriek out, and during these attacks all the above conditions are much increased, the muscles becoming as hard as boards. The dose of chloral hydrate was doubled.

9th.—The spasms are more frequent, the pain greater, and the jaws stiffer. The patient is very ill. Three grains of carbolic acid were injected per rectum three times a day in addition to the chloral hydrate by the mouth every four hours.

13th.—The patient can open his mouth better, but on attempting to sit up he is always seized with violent abdominal spasms, causing opisthotonos. He was given one-sixth of a grain of extract of physostigma every six hours, and ten grains of chloral hydrate every four hours.

15th.—The patient is taking nourishment well, but does not get much sleep, although he has injections of morphia. He perspires profusely. The spasms of his abdominal muscles are much worse; they appear on the least movement; the pain, which causes him to keep shrieking out, shoots down the legs. The pain in the back is better and he can open his mouth much wider.

17th.—The patient can open his mouth wider to-day. The pains and spasms are much less severe and less frequent.

20th.—He is very much better in every way. There are no pains or spasms, and the jaws were open all day.

23rd.—He is to leave the hospital, being convalescent.

Remarks by Mr. MORRIS.—The wound in this case was one that was very likely to be followed by tetanus. The carbolic acid was given per rectum mixed with mucilage with the view of carbolising his blood, thus rendering his tissues obnoxious to the bacilli; but after four days this was discontinued, and the extract of physostigma was given every six hours. I have had in another case of subacute tetanus within the last year or two the satisfaction of seeing the patient recover whilst taking the physostigma. It is to be noticed that the patient was taking ten grains of chloral hydrate every four hours as well as the extract of physostigma, and, in addition, had a subcutaneous injection of morphia at night.

LEICESTER INFIRMARY.

TRAUMATIC TETANUS TREATED BY INJECTIONS OF TETANUS ANTITOXINA; RECOVERY.

(Under the care of Mr. J. ST. THOMAS CLARKE.)

TETANUS is now recognised to be an infectious disease resulting from the entrance into the body of a certain poison produced by the tetanus bacillus. The investigations of Nicolaier had established this fact to a great extent when his statements were fully confirmed by Kitasato, who succeeded in producing the microbe from tetanic pus, and produced tetanus in animals by inoculations of the cultures. A most important advance was made when Tizzoni and Cattani succeeded in producing immunity against tetanus even in animals susceptible in a high degree, and showed that the blood serum exerted an antitoxic action and could produce immunity against and cure of the disease. They succeeded also in obtaining this antitoxine in a solid state by the addition of alcohol to the serum and drying the precipitate *in vacuo*. It was not long before the effect of this remedy was tried in a case of tetanus occurring in a human being, and Gagliardi of Molinella, and subsequently Schwartz of Padua, Pacini of Tuscany, and Nicholadoni of Innsbruck, reported cases of cure by its means. Since then also Casali, Barth, Morgagni, Gattai, Lesi, and Roux have reported the successful treatment of cases. Roux's communication is probably the most important, for he gives seven cases in which the treatment was tried with only two cures. So far as we are aware the following case is the first treated successfully in this country by this method, and we congratulate those in charge of it on the result. The case was not one of the worst met with in surgical practice, and until we have more experience of the working of the remedy it is not advisable to place too much confidence in it; Roux's failure in five out of seven cases emphasises this fact. There are numerous cases of recovery from tetanus reported, and ascribed to drugs. We hope this new remedy may prove successful; it promises well. It is evidently not infallible, yet certainly deserves a trial, and a careful record of cases should be made whether the result appears satisfactory or not. For the notes of this case we are indebted to Mr. G. Winfield-Roll, senior house surgeon.

A boy fourteen years of age sustained a crush of the top of the thumb, which set up suppuration of the nail matrix and beneath the thumb-nail. A week later he began to suffer from stiffness of the neck-muscles and spasms. He was sent by Mr. Willan of Melton Mowbray to the infirmary, being admitted on Oct. 23rd. He then appeared to be a well-nourished, robust-looking lad, lying supine with his head thrown back. The face was distorted with the characteristic risus sardonicus of tetanus. At intervals of about half an hour he was seized with a spasm in which the back was arched, the head more extended, and the teeth were tightly clenched, the face and lips becoming intensely livid from suspension of respiration. In the

intervals between the spasms he was unable to separate the teeth more than half an inch, but he could swallow fluids without great difficulty. He was ordered bromide of potassium and chloral hydrate mixture—fifteen grains of each every four hours. This was continued during two days without benefit, the spasms becoming more frequent and more severe. Owing to the great difficulty in swallowing it was then stopped. On Oct. 27th injections of antitoxin were commenced. This was very kindly forwarded to Leicester by Dr. Roux of the Institut Pasteur, Paris. The total amount used was fifteen grammes of dried serum, dissolved in ten times its weight of distilled sterilised water; 100 fluid grammes were injected in the first twenty-four hours, fifty at 6 P.M. and fifty at 11 A.M. On each occasion chloroform was administered, the fluid being injected subcutaneously with a sterilised syringe in very many punctures in the thighs, buttocks, arms and chest. In the second twenty-four hours the remaining fifty grammes were injected in two parts at 8 30 P.M. and 5.30 P.M. The punctures determined a slight and transient redness of the skin at the points of puncture. No pain was complained of on recovering from the effects of the anæsthetic. On the second day of injection the convulsions were noticeably diminished in severity, the lividity and the clenching of the teeth being less marked, as well as the arching of the back. From this time there was a slow and gradual abatement of the severity of the spasms, though they did not entirely cease for another week; their frequency was also very much less. On Oct. 30th he again took fifteen grains of bromide of potassium every four hours and continued to do so during one week. The improvement was undoubtedly simultaneous with the injections, and the severity of the spasms was less from the day they were commenced. It is only reasonable to ascribe the benefit to the antitoxin, as the drugs appeared to have little or no effect. As regards the local treatment, on the day after admission the thumb-nail was removed under chloroform and the suppurating matrix freely incised and dressed with fomentations of a 1 in 20 carbolic acid solution. It is remarkable how little constitutional disturbance was caused by the injections of such large quantities of serum, and the absence of constitutional disturbance shows the thorough asepsis of the preparation and preservation of the serum. The only elevation of temperature was on the second day, when it reached 100° F.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.

A CASE OF CEREBRAL HÆMORRHAGE IN A CHILD SEVEN YEARS OF AGE, FOLLOWING MITRAL DISEASE.

(Under the care of Dr. FOX.)

CEREBRAL hæmorrhage in children is an unusual occurrence, and in this case the symptoms were possibly dependent partly on the thrombosis of the sinus and veins, for the clot was of small size, the influence of age and the changes in the vascular system which it produces are well known, and we very rarely find cerebral hæmorrhage in a patient under twenty years of age.

On Oct. 24th, 1893, a child seven years of age was admitted to the South Devon and East Cornwall Hospital suffering from mitral disease. There was some ascites and also dropsy of the legs. Early in November the quantity of urine passed by the patient became very small, and the child was at first fretful, then drowsy, and finally quite comatose. There were lucid intervals. In a day or two the child was seized with convulsive attacks, which were left-sided. The head was turned towards the left, and there was conjugate deviation of the eyeballs in the same direction. There were violent twitchings of the left side of the face, particularly of the lower muscles and of the left arm. The legs were not much affected. The left leg twitched very slightly. The pupils were dilated and the pulse was rather hard. A hot bath always put an end to these attacks. The patient died and a post-mortem examination was made. The vessels running in the pia mater about the upper part of the right fissure of Rolando, the longitudinal sinus, and some veins over the cerebellum were thrombosed. About half an inch below the surface of the brain, at the upper part of the right fissure of Rolando, there was a round dark clot the size of a large cherry.

Remarks.—It is worthy of note that although the clotting in the vessels, which by pressure on the cortex must have caused the convulsions, took place most thoroughly at the upper part of the motor area, the leg was very little affected. This could be easily accounted for by the pressure on, and tearing of, the nerve fibres on their way to the leg, which was brought about by the rupture of a vessel and the formation of the clot.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Spontaneous Disappearance of Solid Abdominal Tumours.

AN ordinary meeting of this society was held on Jan. 23rd, Dr. CHURCH, Senior Vice-President, being in the chair.

Mr. J. GREIG SMITH (Bristol) read a paper on the So-called Spontaneous Disappearance of Solid Abdominal Tumours. Three cases were recorded, the common leading features in which were the presence of a solid tumour in the abdomen, absence of pyrexia, clinical evidence of malignancy on abdominal section, and ultimate disappearance of the tumour, with complete restoration to health. The first case was that of a young man aged twenty-five. Intestinal obstruction existed due to a solid tumour as large as a cocoanut situated in the lower abdomen. The tumour, being on inspection diagnosed as malignant and being adherent to intestines, was not disturbed. Enterostomy was performed for the obstruction. The tumour slowly diminished in size, and six months later, when the abdomen was opened for the performance of enterorrhaphy, it was found to have disappeared. The patient, after four years and a half, continued in good health. In the second case, that of a woman aged fifty-five, the tumour lay in the umbilical region, and was adherent at and around the umbilicus. It was globular in shape and as large as a child's head at birth. On abdominal section the intestines were found to be adherent to its surface on one side. Diffusing malignancy was diagnosed, and no attempt at removal was made. A small collection of muco-pus at the umbilicus was evacuated, and the slight discharge from a fistula which formed there continued for over two years. The tumour disappeared, the sinus closed, and the patient was now quite well. A girl aged nineteen was the subject of the third case. Here the tumour was as large as an eight months' pregnant uterus, filling and distending the upper and right side of the abdomen, but not dipping into the pelvis. On abdominal section the tumour was diagnosed as malignant and unremovable. A fæcal fistula formed; the tumour gradually diminished in size and ultimately disappeared. The intestinal opening was closed by operation, and the patient was at present in good health. Comparative observations were made on solid tumours of myomatous, tuberculous, and inflammatory nature, which in the writer's experience had been found to disappear after operation. An explanation as to the origin of the tumours in question was made to rest on the process of phagocytosis and the heaping up of embryonic protective cells around a minute fistulous opening communicating with intestine. Cure was accidental, but not spontaneous, depending in one case on a diversion of intestinal contents and in the two others on an external opening of the fistula.

Dr. CHURCH remarked that it was just in such cases as those under discussion that the quacks made capital. He suggested that some inflammatory lesion or enlargement of a Meckel's diverticulum might be the cause of some instances. An accumulation in a diverticulum, by preventing the passage of fæces along the intestine, would gradually lead to an increase of its own contents.

Mr. ALBAN DORAN said that the paper dealt with the very delicate subject of the erroneous or doubtful diagnosis of abdominal tumours. In cases of chronic peritonitis, accompanied by adhesions of intestine and by the accumulation of scybala, clinical signs might arise which closely resembled those of solid tumour. Chronic tuberculous peritonitis was not rare in tolerably elderly people, and as a result masses of inflammatory material might be formed on the surface of the intestine; these might subsequently disappear, and the temperature might remain for long periods little if any above the normal. Such inflammatory formations simulated a semi-solid or semi-cystic tumour and were

hard to differentiate even on inspection; he quoted a case which illustrated this. Cancer and sarcoma did not tend to get better by themselves; when external, they might slough, but such a condition occurring within the abdomen would certainly prove fatal. Mr. Greig Smith had suggested that these formations were composed of embryonic tissue, but most growths of this structure were sarcomatous. He compared the third case related with one of von Mosetig's cases quoted in a paper of his own in order to show how difficult it was at an exploratory operation to distinguish the nature of the growth by mere naked-eye appearances. It had been suggested that in exploratory operations, where ascitic fluid had been let out or where simple tuberculous peritonitis was discovered, the draining away of the fluid was followed by the pouring out of white cells in greater quantity, with resulting death to the tubercle bacilli. Cases of doubtful tumour should always be watched in bed for two or three weeks before operation. In cases of chronic peritonitis in adults and tuberculous peritonitis in young men or women the changes in the apparent tumour were most remarkable and might take place in a very short space of time. In the second case related by Mr. Greig Smith he thought that there was little doubt that the so-called tumour was simply a sheet of inflammatory deposit, or else an enormously thickened mesentery. Mr. Knowsley Thornton ten years ago removed a portion of mesentery which had become so thickened from inflammation as to resemble a thick piece of spongiopiline.

Mr. BLAND SUTTON said that since 1891 he had had four of these cases of disappearing tumours under his care, but in none of them had he to open the intestine. A boy aged eleven complained of pain in the left iliac region. After three weeks' rest, as he became no better and symptoms of intestinal obstruction supervened, he saw him in consultation with Dr. Scott. The signs were then like those of an inflamed vermiform appendix, but were referred to the left iliac fossa. A drachm of pus was met with on cutting down, and on opening the peritoneum a large irregular tumour was found between the layers of the sigmoid flexure, looking like a lympho-sarcoma. The wound was closed and a gloomy prognosis was given, but the tumour had now entirely disappeared. His second case occurred in a woman aged fifty, who had complained of symptoms pointing to intestinal obstruction, and per vaginam a large tumour could be felt suggesting an impacted myoma. As no change in the tumour resulted from frequent enemata and a careful diet, he opened the abdomen in the middle line and found what looked like cancer of the sigmoid flexure adherent to the uterus. The wound was closed without further interference. This occurred in the middle of 1891, and since that time she had led an active and industrious life and had been free from bowel trouble of any kind. All these cases of spontaneous disappearance of tumours had been associated with the bowel, and he thought that in the manipulations incidental to an exploratory operation adhesions had been broken down which had prevented the passage of intestinal contents, and, this having been relieved, the inflammation had subsided. He certainly refused to believe in the spontaneous disappearance of any connective-tissue or cancerous growths. Though spontaneously disappearing myomata had been recorded, most of these cases were based on clinical observation alone.

Mr. BARKER remarked that most of the disappearing tumours had been referred to the abdomen, but he gave some particulars of one which grew in the neck. The patient, a female thirty-two years of age, presented a rapidly growing tumour under the angle of the right lower jaw, unaccompanied by elevation of temperature. The growth was elastic, highly vascular, and fixed to the transverse process of a vertebra. In attempting to separate it the capsule ruptured, and blood rushed forth in great quantity. He therefore closed the wound without removing the growth. Five years later the tumour had very much diminished in size, and he was unable now to say what was its nature; it resembled precisely a quickly-growing sarcoma. He suggested that in one of Mr. Greig Smith's cases the swelling might have been due to actinomycosis.

Sir W. PRIESTLEY alluded to the well-known changes undergone by fibroid tumours of the uterus, which sometimes not only shrivelled up but altogether disappeared at the menopause; this was attributed to a curtailment of the blood-supply interfering with nutrition. The tumours related in the paper under discussion turned out to be more benign than had been expected, and thus resembled many tumours and ulcerations of the breast or uterus which bore every appearance of malignancy, and yet, to the surprise of those who had made the diagnosis, they disappeared and the patients recovered. The whole question was as to the nature of the tumour, for as to their existence there could not be a doubt. He knew of no tumours in the abdomen or pelvis which could disappear in the way described that were not of inflammatory origin. They need not be accompanied by a high temperature, for large tumours and extensive areas of suppuration might occur without febrile reaction or special local signs. A foreign body lodged in the soft tissues might cause a large formation of inflammatory tissue around it, and, in a similar way, the escape of some foreign irritating substance might lead to the formation of a tumour. A good deal had been said of phagocytes in their police-like functions, but he thought that when such a theory was invoked to account for the removal of large tumours it became a little incredible.

Mr. BARWELL inquired whether odorous pus was found in all the cases, for unless this were present the explanation of a fæcal fistula having caused the inflammation could not be accepted. He had seen many cases of chronic peritonitis associated with suppuration unaccompanied by fever or constitutional disturbance, and he quoted two illustrative instances.

Mr. GREIG SMITH, in reply, said that he had always paid great attention to the exact delimitation of these tumours. The thickening observed round an inflamed vermiform appendix rarely exceeded an inch; but the superposition of layer upon layer of intestine might cause it to resemble a tumour, though in that case parts of the swelling would be hollow; however, in his cases the tumours were solid. As to the one around the umbilicus he turned it out of the abdomen and cut into it, and its tissue was grey and glistening, like that of a sarcoma; there was no inflammatory glueing of intestine, though he had seen cases associated with agglomerations dependent on cellulitis caused by the escape of fæces. The possibility of the third case being due to actinomycosis was discussed, but the idea was dismissed. The suggestion as to the possible influence of Meckel's diverticulum was important, and in all three situations where the tumours were found, such a diverticulum if leaking would account for the condition exactly. Mr. Greig Smith explained the process of formation of these masses on the assumption of a heaping-up of phagocytes around the slight discharge of an intestinal fistula. Inflammatory thickenings were common, especially around the large bowel, but all his cases were movable tumours, and there was no question of cellulitic thickening. The discussion had helped in the understanding of these difficult cases and would do away with the theory which had been brought forward, and affirmed, that solid abdominal tumours might spontaneously disappear after an operation. There was nothing spontaneous about the process, which was simply a question of cause and effect.

MEDICAL SOCIETY OF LONDON.

Removal of Rubber Tubing from Male Bladder.—Two Cases of Fractured Patella.—Mycosis Fungoides.—Tuberculosis of Skin.—Incipient Addison's Disease.—Horny Growth on Penis.—Syphilis of Lip.—Removal of Entire Mucous Membrane of Bladder.—Syphilitic Perforation of Soft Palate.—Ectopia Vesicæ.

AN ordinary meeting of this society was held on Jan. 22nd, Mr. SWINFORD EDWARDS occupying the chair in the unavoidable absence of the President, Dr. Bristowe.

Mr. FEARCE GOULD showed a patient from whose Bladder he had removed nine inches of Indiarubber Tubing of the size of No. 17 catheter of the French scale. The patient thought he had gonorrhœa, and had been told that the way to cure it was to make injections deep down in the urethra. He was disturbed while doing this, and as he hastily adjusted his clothes the tube passed into the bladder. With the cystoscope the end of the tube was seen, and it was withdrawn with the lithotrite without difficulty.—Mr. SWINFORD EDWARDS mentioned the case of a man under the care of one of his colleagues who had a piece of grass in his bladder. This was at first missed with the lithotrite, but after seeing it with the cystoscope he easily grasped the end and removed it.—Mr. HURRY FENWICK said that the most difficult case he had had to deal with occurred in a man who had introduced two and a half inches of stout

paraffin taper into his bladder which floated on the top of the urine. With a cystoscope he saw which way it was pointing, and he managed to get hold of one end and extract it, but not without some slight laceration of the urinary passages.

Mr. BALLANCE showed two cases of Fractured Patella occurring in patients aged respectively thirty-six and forty-five years, who had been treated by immediate incision and wiring. The vertical incision which he used was placed laterally, so as to avoid a scar over the front of the patella. The operation was practically the same as recommended by Lister in 1883. In one of the cases shown no ridge could be felt to indicate the position of the wire, and movement in the joint was free. In the other case the man had been afraid to move the joint, and he was, therefore, about to be readmitted for passive movement. He had operated in seven cases, all of which were uniformly successful. He had not used a drainage tube in any. The temperature never exceeded 100° F. after the operation except in one case, in which there was ulceration of the mouth following the use of a leaky Clover's ether apparatus. All other forms of operation failed to remove the aponeurosis, which slipped between the bones and the clot which had accumulated there and kept the fragments apart. He had no future trouble with the wire. He held that it was safer to operate without assistance, the operator using the sponges and handling the sutures himself. He cut away with scissors the aponeurosis which lay between the fragments, irrigated the joint with a solution of 1 in 1000 of perchloride of mercury, and dressed with cyanide gauze. He felt that he had, as a rule, left passive movement too long. It should be begun in from ten to fourteen days, at which time the splint should be left off; at the end of a month the patient should be allowed to walk about the ward, and at the end of six weeks to go back to work.—Mr. TURNER said that there was no doubt that this method yielded the best results, and some time ago he collected a number of cases to prove this. He had seen the ends of the bone creeping through the cicatrix, and this was a point in favour of the lateral incision. He hoped that some suture would be introduced less open to objections than silver wire. A short time ago he had under his care a man whose patella had been united by silver wire and who fell on to the knee-cap, with the result that an acute suppurative arthritis developed. Kangaroo tendon did not appear to be sufficiently strong, nor did silkworm gut or fishing gut.—Mr. WATSON CHEYNE said that at King's College Hospital wiring was the only method of treatment adopted for simple fractures of the patella. He preferred to keep to the wire as the safest suture. He usually removed the dressing on the tenth day, took off the splint, and applied a collodion dressing. The patient was then left in bed for a week and encouraged to bend the leg. At the end of another week he was allowed to get up and walk about the ward, and at the end of six weeks the patient returned home with perfect motion. The open operation was undoubtedly better than any subcutaneous method, for there could be no prospect of bony union unless the fascia was removed from between the broken bones. The best incision was one not directly over the line of the wire.—Mr. BRUCE CLARKE said that he did not as a rule allow his patients to move their limbs so soon. The first case on which he had operated was that of a railway guard, who went to work again at the end of six weeks and was then found in his van with a compound fracture of the patella opening into the knee-joint. The joint was washed out and the fracture reunited. The patient was now well and had perfect movement. Mr. Clarke now waited six weeks before commencing passive movement. In his first case the incision was placed transversely, but he had latterly adopted the vertical incision.—Mr. BIDWELL mentioned a case which was operated on last May by the subcutaneous method, a silver wire suture being passed through holes drilled in the bone. In August the patient slipped and again fractured the patella. He cut down and opened the joint and found the free ends of the wire lying between the condyles of the femur. The edges of the fragments of the patella had never united by bone, and so he resected the edges and rewired it. He kept the leg on a splint for a fortnight and let the patient move about in bed for a month before going home.

Dr. M. DOCKRELL exhibited a man aged forty-eight whose body was almost covered with a dry, scaly, exfoliating dermatitis. Over the right lumbar region and over the outer surface of the right forearm there were two areas of Mycosis Fungoides.

Dr. DOCKRELL also showed a woman aged twenty-six who presented an area of Tuberculosis of the Skin of each cheek, looking much like erythematoid lupus vulgaris. It had started on the nose and had lasted for six years. A sister of the above patient, aged eleven, was also shown affected with the same malady in an earlier stage.

Dr. DOCKRELL then showed a woman aged thirty-five years with a pustular eruption and some discolouration of the skin. He regarded the case as an instance of commencing Addison's disease.

Mr. BRUCE CLARKE showed a man aged forty-eight who had been circumcised seven months ago. At the side of the corona glandis a large Horny Growth had arisen.—Mr. SHEILD thought probably that some epidermis had been implanted at the time of the operation. Small epithelial growths often arose in the finger after being pricked with needles or thorns. Horns might also arise from ulcerating sebaceous cysts, commonly on the scalp or scrotum, and they might likewise follow molluscum contagiosum.

Mr. TURNER showed a man aged forty-one who had been under the care of Mr. Johnson Smith at the Seamen's Hospital. There was no history of syphilis. He was married and had five children, all living and healthy. He had been a pipe-smoker for about thirty years. About three months ago he noticed a small hard lump in the middle line of the lower lip. This soon broke down and gave way to a running sore. About seven weeks ago he noticed a hard lump just behind the lower jaw in the middle line. He had been under antisyphilitic treatment at Grimsby and had lost flesh. On the left side of the lower lip there was a deep excavated ulcer of irregular shape; this, as it ran across the middle line, became continuous, with a prominent hard swelling covered by congested skin involving the right side of the lip. There was considerable thin, fetid, and purulent discharge from the ulcer. The lower lip was adherent to the jaw through its whole length. In the suprahyoid space just beneath the lower jaw there was a hard prominent mass of enlarged lymphatic glands. On Nov. 11th he was ordered mercury and iodide of potassium, and had taken it since. During this time the ulceration had extended more to the right side, but the induration of the lip was considerably less and in several places the ulcer had healed only to break down again. The mass beneath the jaw had decidedly increased in size, and there was now an indication of pus formation.—Mr. SWINFORD EDWARDS remarked that the history was short for malignant growth and that the glands were not sufficiently enlarged. The large area of hyperæmia was also unlike cancer.

Mr. HURRY FENWICK showed a specimen of Entire Exfoliation of the Mucous Membrane of the Bladder. The patient, a man aged fifty-three, was also exhibited. He had been operated upon by Mr. Heycock for acute cystitis by a perineal cystotomy. The entire mucous membrane of the bladder was withdrawn through the perineal opening as a white phosphate-encrusted slough. On the outside of the slough strands of the muscular layer of the bladder could be seen. The man had suffered from difficulty of micturition for twenty-five years, but no impediment in the form of stricture or swollen prostate could be found. The patient recovered completely and could hold his water one hour and a half. Thirty-three cases of exfoliation of the mucous membrane due to accidents in the puerperal state (retroflexion of gravid uterus) had been collated by Haultain, but only twenty which had occurred from other causes (Brisson). The case was important as showing that even large amounts of the mucous membrane might be removed in operating for vesical tumours.—Mr. SWINFORD EDWARDS mentioned a case of a man who was admitted to hospital last August with hæmaturia, increased frequency of micturition, and occasional retention. No stone could be found. He performed a median perineal cystotomy, and fished from out of the bladder a cast of the vesical wall—a distinct sac coated with phosphates. The patient could now hold his water for the best part of an hour.—Mr. FENWICK, in reply, said that there were three classes of these cases: (1) membranous cystitis, in which lymph was cast off from the surface of the bladder and passed in the water; (2) burrowing of tuberculous deposit under the mucous membrane, with shedding of portions of the mucous coat; and (3) the entire casting off of the mucous coat of the bladder together with some of the muscle fibres. The case alluded to by Mr. Edwards was one of the second group.

Dr. PASTEUR showed a man aged forty-three, with a Perforation of the Soft Palate, probably due to syphilis. He had a urethral discharge several years ago, but there was no

evidence of syphilis to be found. Three months ago he felt something give way in his throat, and since then his voice had altered. There was a small perforation just to the left of the base of the uvula. He had heart disease, but there was no evidence of dilatation of the aorta.

Mr. CARLESS showed a boy on whom he had operated for Ectopia Vesicæ, using a modified plastic method, like that adopted by Messrs. Barrow and Battle, first raising a bridge of skin from the scrotum upwards and bringing out the penis below.

OTHER METROPOLITAN MEDICAL SOCIETIES.

HARVEIAN SOCIETY OF LONDON.—The annual meeting of the Harveian Society was held on Thursday, Jan. 18th, when the retiring President, Mr. MALCOLM MORRIS, delivered an address, to the merits of which we make allusion in another column. The list of officers proposed by the Council for the ensuing year was unanimously adopted, Dr. George Eastes being chosen president, Mr. Cripps Lawrence treasurer, and Dr. Boxall and Mr. Peyton Beale hon. secretaries. The annual conversazione, held on the 18th inst., proved very successful, and was attended by nearly 200 members and visitors. To the retiring president, Mr. Malcolm Morris, is due the initiation of an interesting and instructive exhibition of various methods of depicting disease. The efforts of the president were ably seconded by the honorary secretaries, Mr. E. W. Roughton and Dr. Robert Boxall, in bringing together various specimens of interest. The museums of some of the London hospitals, of the Royal College of Surgeons, and of many individual members of the profession contributed valuable exhibits. Coloured drawings and photographs were lent for the occasion by Dr. Radcliffe Crocker, Mr. Hutchinson, Mr. Malcolm Morris, and Dr. Pringle. Mr. J. W. Hulke contributed a valuable series of water-colour drawings of malignant and other tumours.

HUNTERIAN SOCIETY.—An ordinary meeting of the society was held at the London Institution on Jan. 10th, when Mr. F. GORDON BROWN, President, occupied the chair.—Dr. FLETCHER BEACH read a paper on Sporadic Cretinism, chiefly founded on an analysis of 116 cases, including sixteen which had been under his care. He mentioned that the disease was present in the fœtus, and that the cases formerly defined as fœtal rickets were now known to be those of sporadic cretinism. He described the condition of the body, thyroid gland and fatty tumours, skull and bones found in such cases, and alluded to the state of the brain in one of Dr. Barlow's cases, which showed remarkable features in the temporo-sphenoidal lobes. The etiology of the disease was then considered and the influence of consanguinity &c. in the production of the disease. With regard to sex in sporadic cretinism, as far as the analysis of 116 cases went there were not quite twice as many females as males. With respect to the locality in which these 116 cases occurred, it appeared that the disease prevailed most extensively in England, and that Scotland, France, and America had about an equal number. Sporadic cretinism was due, Dr. Fletcher Beach said, to absence or disease of the thyroid gland, for in some few cases bronchocele had been found to be present. The differences between the changes which took place in the thyroid gland in myxœdema and sporadic cretinism were also mentioned. The diagnosis and prognosis of sporadic cretinism were touched upon, and the treatment was shortly mentioned.—Dr. WALLIS ORD mentioned two cases in which he had given five grains of the dried thyroid extract daily, with marked benefit.—Dr. SHUTTLEWORTH showed photographs taken before and after treatment of five cases of sporadic cretinism which he had seen at the Lancaster County Asylum.—Dr. FLETCHER BEACH, in reply to questions, stated that in his experience most cases occurred in the lower classes, and that the number of first-born children affected was not great. In many cases some healthy children intervened between two cretins in one family.—Mr. OPENSHAW, with Mr. Waren Tay's permission, read the notes of twenty-two consecutive cases of Amputation of the Mamma for Carcinoma, all of which had united by first intention.

PROVINCIAL MEDICAL SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this society on Jan. 17th Dr. BYROM BRAMWELL again showed a case of Psoriasis in which complete recovery had taken place under the use of thyroid, also the two cases of Lupus treated by the same substance, to show the improvement which had taken place since the last meeting of the society. He also showed a very typical example of Ichthyosis in a woman aged twenty-four years. She had been born with the disease, and he had known the case for eighteen years. It was over the body generally, with the exception of the face, palms of the hands, and soles of the feet. There was a very disagreeable odour from the patient, similar to that from corns when occurring on the legs of horses. He was treating the patient with large doses of thyroid, and improvement had commenced; considerable masses of the ichthyotic cuticle had become detached, leaving normal skin in its place. There was no hereditary tendency to the disease in the family.—Dr. W. STEWART showed a man who had recovered from a severe compound subastragaloid dislocation of the foot received by falling down the hold of a ship.—Dr. W. ALLAN JAMIESON showed a case of Lupus Erythematosus, resembling the telangiectic variety described by Dr. Crocker.—Dr. JOHN THOMSON showed photographs and gave some notes of the result of a year's treatment with thyroid of a case of Cretinism. The patient had grown four inches, although no growth had taken place for the preceding fourteen years.—Dr. A. BRUCE exhibited a specimen of Cholesteatoma in the base of the brain, of which no symptoms of importance had been noted during life.—Dr. JAMES MACKENZIE of Burnley read an interesting paper, which he illustrated by means of diagrams and tracings, on the Significance of Pulsations in the Veins and in the Liver. He had studied the subject by means of the graphic method, having constructed a simple apparatus for the purpose. His observations led him to interpretations of the various curves of venous tracings different to those which have been hitherto advanced, and his interpretation was considered to be more complete. He dwelt upon the importance of the venous pulse as indicating the precise condition of the right heart, and believed that this afforded more valuable information than was yet recognised of the condition of the heart as a whole. The demonstration was regarded by the various speakers as being apparently confirmatory of Dr. Mackenzie's contentions. His papers on the subject are being published in the *Journal of Pathology*.—Dr. BYROM BRAMWELL read a paper on a case of Cancer of the Spleen and other Organs. In addition to the affection of the spleen and internal organs, including the bones, there were multiple cutaneous nodules.—Dr. LEITH showed microscopic sections of the Growths from different Organs.—Dr. BRUCE remarked on the rarity of Cancer of the Spleen in the infiltrating form; and Dr. W. RUSSELL mentioned that he had a specimen of the condition, which was the only one he had ever met with.

MANCHESTER CLINICAL SOCIETY.—A meeting of this society was held on Jan. 16th, the President, Mr. E. S. BISHOP, being in the chair.—The PRESIDENT showed three cases of Hernia treated by Radical Cure. These cases represented three distinct varieties: acquired scrotal, acquired femoral in a boy eight years of age, and congenital strangulated. They also represented the results of three distinct operations—namely, Bates's, Watson Cheyne's, and Bishop's. The results in all were perfect. Reference was made to the necessity in all cases, except those which were strangulated, of previously eliminating the efficient cause, so that only the results remained to be dealt with before any operation was attempted.—Mr. BAIN then read a short note on the Treatment of Enteric Fever, especially referring to dieting and nursing.—Dr. DONALD mentioned some cases of Tubal Abortion and Tubal Rupture. Towards the close of the sitting Dr. WILD gave a short account of Piperazine, and described various experiments he had made to test its pharmacological action.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.—Dr. DRUMMOND, Vice-President, took the chair at a meeting of this Society on Jan. 11th, when Dr. H. H. AITCHISON showed a patient who had been operated on for Fracture of the Spine. The man was injured on May 4th last by a mass of stone falling on his back. There were complete loss of power, partial loss of sensation, and incontinence of urine. The injury affected the lower dorsal and upper lumbar vertebræ. On May 11th this region was exposed, the spines and laminæ removed, and some spicules of bone taken out. The cord looked healthy. The next day sensation was improved, but other symptoms were unchanged. In two weeks motion began to return and in five weeks he could move the feet and retain urine for some time. In August a poroplastic jacket was applied and he was able to walk fairly well, whilst sensation was good.—

Mr. WILLIAMSON showed: 1. A case of Keratitis consequent on Paralysis of the Fifth Cranial Nerve. There was loss of sensation in the region of the right fifth nerve, as well as paralysis of the right external rectus; secretion of tears on the right side was almost absent. The cause of the paralysis was unknown, but there had been right-sided ear discharge. 2. Cases of Acute Osteo-myelitis: (*a*) A man aged twenty-three, who six months ago sustained an injury to the left arm, and a month later there was an abscess of the upper part of the humerus, which healed. After a time, however, thickening of the bone and constitutional disturbance developed. The bone was trephined and a sequestrum removed from the medulla. A sore which was present on the arm was the probable source of the pus organism. (*b*) A boy who was admitted in a typhoid condition with osteo-myelitis of the femur. By means of the trephine a long opening was made into the femur, with an excellent result. (*c*) A boy with acute osteo-myelitis of the tibia, who was operated on on the third day of the illness; the whole diaphysis was removed and the boy now walked with a very slight limp.—Dr. HUME showed two cases of Thyroidectomy in Graves' Disease. The first case was that of a miner the right half of whose thyroid gland has been removed. At the present time the left half had completely atrophied, but the patient is still anæmic, possibly due to his employment, though his general health is greatly improved. The second case was that of an anæmic girl who exhibited symptoms of breathlessness, rapid pulse, enlarged thyroid gland, and slight exophthalmos. After the removal of the right half of the gland the left half diminished, and the breathlessness subsided, whilst the general health greatly improved.—Mr. HARDY showed a case of Perityphlitic Abscess following Typhoid Fever.—Dr. D. DRUMMOND then opened a discussion on Typhlitis, in which he drew attention to various points in the anatomy and histology of the appendix. With regard to morbid anatomy there might be (1) simple adhesions; (2) enlargement of lymphoid tissue with or without cystic changes; (3) the same with pin-hole perforations, resulting probably from small follicular abscesses; (4) large perforations either from inflammation and sloughing following pin-hole perforations or from concretions setting up inflammation; or (5) diffuse suppurative peritonitis, either from pin-hole perforations causing abscess, which ruptured, or rapid infection of the peritoneum from the rupture caused by concretions. The clinical varieties of typhlitis corresponded to these different morbid conditions. With regard to treatment he was strongly opposed to the use of purgatives. Patients suffering from diffuse suppurative peritonitis had almost invariably died under surgical treatment. Cases of localised suppuration should be merely drained, and no search should be made for the appendix.—Dr. HUME agreed with Dr. Drummond as to the pathology and clinical grouping of cases. The important point was to know when to operate. In recurring cases one, of course, operated in the interval; but the difficulty arose in first attacks, How was one to decide the presence or absence of pus? Extremely difficult were the cases of more extensive perforation where there was threatened danger of diffuse suppurative peritonitis. Any operation found necessary must be within a few hours of perforation.—Mr. RUTHERFORD MORISON said that in diagnosis tenderness near the cæcum was of great importance; in diagnosing pus the temperature was not a useful guide. The form of distension, accompanied by increased peristalsis, was of much less grave import than that where peristalsis was absent. An early symptom of typhlitis sometimes was pain in the bladder, with a feeling of retention. In all cases where he was not morally certain that the patient was going to recover he would operate. He had found a perforation in all but one of the cases he had operated upon and believed that it occurred in every serious case.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

OBSTETRICAL SECTION.

Exhibition of Specimens.—Ventral Hernia following Laparotomy.—Colectomy.—Stricture of Transverse Portion of Colon.

A MEETING of this Section was held on Dec. 22nd, 1893, Mr. A. J. HORNE, President, being in the chair.

Dr. ALFRED J. SMITH exhibited: (1) Tubes and Ovaries removed for rapidly growing Fibro-myoma, accompanied by Profuse Hæmorrhage; and (2) a Hydrosalpinx removed from a patient who eighteen months before had a severe attack of puerperal blood poisoning.—Dr. W. J. SMYLY exhibited (1) the Right Fallopian Tube and corresponding Ovary in a case of Ruptured Tubal Pregnancy; (2) a Large Myoma about the size of a fœtal head, which had been embedded for about a quarter of its surface in the fundus of the uterus; (3) a Uterus the subject of Myomata and Cancer of the Mucous Membrane; and (4) Two Tubes removed for Pyosalpinx.

Mr. MCARDLE brought forward some cases to show that the middle stratum of the abdominal wall was the essential one to secure in completing operations for ventral hernia or after laparotomy, and he enumerated the following as the usual causes of non-union in this layer: (1) failure to engage the different layers of this stratum sufficiently in the sutures; (2) interposition of contused peritoneum; (3) hæmatoma not becoming soundly organised; and (4) suppuration from inherent or extrinsic causes. The remedy he considered to be to suture the abdomen in all laparotomies, as is done for herniæ, to obliterate all cavities in which blood or serum could collect, and to avoid contusing the peritoneum by using catch forceps with sharp points. He then described the operation in detail.—Dr. W. J. SMYLY recognised that herniæ occurring after abdominal section brought discredit upon the operation. He thought it was a matter of importance not to make the incision through the linea alba, but to one side of it; it should also be as high up in the abdomen as the circumstances of the operation would permit, and should be clean-cut and not bruised. Suppuration had a great deal to do with the occurrence of hernia after abdominal section.—After some remarks from Drs. PARSONS, A. J. SMITH, and F. W. KIDD, the PRESIDENT referred to the greater likelihood of hernia occurring after suppuration in the suture track. He mentioned the case of a patient from whom he removed the appendages, and who, several months afterwards, during an attack of severe bronchitis, suffered from a considerable protrusion.—Mr. MCARDLE then replied.

Dr. A. J. SMITH read a paper on a case of successful Colectomy for Adhesion of the Cæcum to an old Ovarian Pedicle and Tuberculous Appendix.

Mr. DOYLE exhibited a specimen of Stricture of the Transverse Portion of the Colon taken from an old woman who had suffered from enteritis and gastritis. In June last she suffered from partial intestinal obstruction, and he proposed some operative procedure, which, however, was not carried out. On making a post-mortem examination he found both sides of the stricture distended, showing that it was not completely occluded. At the point of the stricture there was a band going towards the right side. He would account for the symptoms of intestinal obstruction occurring every week (as they did) thus: when the contents of the upper part of the bowel passed into the descending portion the transverse portion was weighed down, and so caused greater narrowness of the stricture, with the result that symptoms of intestinal obstruction were set up, and these passed away according as the lower colon was relieved of its contents.

PATHOLOGICAL SECTION.

Locomotor Ataxy, with specimen of Charcot's Disease.

A meeting of this Section was held on Jan. 5th, Dr. J. A. SCOTT, President, being in the chair.

Dr. NUGENT read an account of a case of Locomotor Ataxy, with Charcot's Disease of the Knee. A man aged forty-nine years was admitted to the Whitworth Hospital on Dec. 28th, 1892, complaining of swelling in the right knee and of general difficulty in walking. There was no history of syphilis or excess of any kind or of hereditary taint. About three years before admission the symptoms commenced, gradually increasing. Later he had periodical fits of "choking," which were laryngeal in character, and which started, as he described, from the pit of the stomach. Three months before he came under observation he had a fall, striking his right knee against the ground, and at that time, he said, he felt "something give." The knee rapidly swelled, but was almost painless. It increased or diminished in size from time to time, and about six weeks after the accident it commenced to bend backwards. While in hospital his voice was impaired and his speech was thick. The pupils were markedly myotic, with the Argyll-Robertson phenomenon well developed, and slight ptosis of both upper eyelids. There were severe pains in the stomach, constipation, and frequent micturition, especially at night,

the urine containing a large quantity of pus and sometimes a little blood. Ordinary sensation was diminished and the knee-jerks were lost. The gait was considerably modified by the condition of his right knee, the retroflexion of which was so great as to cause apprehension that the condyles of his femur, which projected strongly backwards, would burst through the skin. The knee in circumference measured four or five inches more than that of the opposite side, and this increase, due chiefly to fluid effusion, would considerably subside after some days' rest in bed. The veins over the joint were considerably distended, and the ends of the tibia and fibula could be felt to be enlarged. The patient ultimately sank from urinary complications, and died in April, 1893. The necropsy revealed the following condition of the knee-joint: the capsule, synovial membrane, and external lateral ligament were greatly thickened, and small pedunculated bodies, which felt hard, projected into the joint cavity. Near the patella the membrane was roughened and had a warty appearance. The lower end of the femur was greatly enlarged, the cartilage covering the articular portion being eroded in parts. The margin of the articular surface above projected abruptly, was irregular and lipped, and overhung the non-articular surface of the femur. Large synovial fringes overlapped the condyles posteriorly and the cartilage was eroded in parts. The patella was transversely enlarged, but slightly diminished in size from above downwards, and its cartilage was partially eroded, as was also the cartilage on the upper surface of the tibia. The anterior crucial ligament had disappeared and the femur could with ease be luxated backwards to a very considerable degree. The semilunar cartilages appeared to be intact. The spinal cord, examined by Dr. Alfred Scott, presented the usual appearances to be found in locomotor ataxy.—Mr. CHANCE asked whether Charcot's disease of the joints existed without there being any nervous symptoms.—Mr. NIXON inquired into the condition of the other knee-joint.—Dr. O'CARROLL and Mr. DOYLE having also spoken, Dr. NUGENT, in reply, stated that, as regarded Mr. Chance's question, he was unable to give a satisfactory answer. Similar cases had been brought before the Clinical Society of London, and no definite opinion had been arrived at. Many observers asserted that chronic rheumatic arthritis and Charcot's disease of the joints were the same. Professor Charcot himself admitted that a tabetic patient might be attacked with chronic rheumatic arthritis, and that if he was the one condition could not be distinguished from the other. In reply to Mr. Nixon, he stated that during life the left knee appeared to be perfectly normal. It was not examined after death.

Reviews and Notices of Books.

Tumours, Innocent and Malignant; their Clinical Feature and Appropriate Treatment. By J. BLAND SUTTON, F.R.C.S., Assistant Surgeon to the Middlesex Hospital. London: Cassell and Co., Limited. 1893.

THERE are few subjects within the whole domain of pathology more abounding in interest than that of new growths. Standing as it were apart from all other nutritional defects, and yet linked on the one hand with the process of hyperplasia, and on the other with that of repair from injury of the tissues or inflammation, and being, moreover, closely related by the whole series of developmental changes that take place in the normal growth of the body, the neoplasm may be said to form the nexus between the normal and the morbid, whilst it is at the same time one of the most widespread of pathological lesions. The wide extension given to the term "tumour" in pre-histological days and the want of harmony between the clinical and pathological meanings of the term are accountable for much that has been confusing and erroneous, but, thanks to the unremitting labours of pathologists, the truer, if more restricted, use of the term is now generally acknowledged. The great, but uncompleted, work on the subject by the founder of "cellular pathology" embraced the consideration of many conditions which do not fall under the definition of a neoplasm, and this definition is properly more restricted still by the exclusion from the category of all those formations which are known to be induced by the operation of a specific infection, such as tubercle, syphilis, lepra, and actinomycosis. In view of the present endeavour to establish the parasitic origin of carcinoma, it may be that the process of excision—in the pathological sense—is destined to involve other members of the group. At any rate it would be arrogant to assume that we have yet arrived at a final conception of the true relations of each of them. This can only be arrived at when their etiology is as well and fully determined as their histology has been.

Mr. Bland Sutton, in the work before us, has been studiously careful in the matter of classification and is thereby entitled to the gratitude of all students of pathological science. Yet in the four main divisions, amongst which he groups all tumours—namely, (1) the connective tissue group; (2) the epithelial group; (3) the dermoids; and (4) the cysts—he is forced to go beyond the recognised acceptation of a "tumour" in respect to lesions and defects related under the two last-named headings. It would, of course, have been impossible to have done otherwise, and the masterly grasp which the author has evinced of the whole subject of dermoids and of cysts has done much to elucidate the problems connected with these profoundly interesting groups. It is in these chapters that the author draws with such advantage upon his wide knowledge of animal morphology and comparative pathology, and they alone would serve to stamp the work as a striking contribution to science. Nevertheless, it might well be objected that the time has arrived for differentiating the conditions described in this part of the work more decidedly from the new formations which fall into the first half. We confess that we should have liked to have seen Mr. Sutton, who has amply shown in these pages that he has framed his views with independence and originality, boldly entitling his work "Tumours, Dermoids, and Cysts," as being more consistent with our present standpoint.

One of the foremost features of the book is the skilful use which the author makes of clinical as well as of pathological knowledge in determining the nature of a new growth. This is the right way to approach the subject, for obviously that view of a tumour which is limited to its structure alone and takes no count of its life-history cannot but be very imperfect. Another excellent point is the inclusion of many subjects which are often lightly dismissed in the pathological text-book. The fulness, for instance, with which the Odontomata are treated is equalled by the suggestive remarks which throw a new light upon these singular formations. Indeed, Mr. Sutton's remarks on many of the facts contained in this book are singularly suggestive, and if dogmatic they are yet always supported by sound reasoning. Thus it may surprise some to find the old and time-honoured divisions of the carcinomata discarded, but there is reason for ignoring them, seeing that the characteristics of "scirrhus," "medullary," and "colloid" are accidental rather than essential attributes of the neoplasm. Mr. Sutton has also done good service in dwelling on the close affinity between the adenomata and carcinomata, which he emphasises by describing them together under each of the organs they attack. This point of view has obviously led him further to exclude from the class of "epithelioma" all those growths which arise in connexion with mucous membranes covered by columnar epithelium. All such growths may be considered as tubular adenomas or carcinomas, and in Mr. Sutton's opinion stratified epithelium alone gives rise to epithelioma. We are glad to find, too, that he does not countenance the term "endothelioma," and that he classes the psammomata under the group of "papillomata." The chapter on Horns is full of curious and interesting facts; but one of the most interesting departures from generally accepted teaching is to be found in the chapters dealing with the

"sarcomata." The author points out the singular fact that tumours containing striated fibres and cells are found in parts devoid of striped muscle, such as the kidney and testis. These tumours have generally been regarded as striated myomata, and their occurrence has been cited as supporting Cohnheim's ontological doctrines. Mr. Sutton points out, however, that they ought more rightly to be deemed as spindle-celled sarcomata, and he declares that the only myomata known to occur are those composed of smooth fibres. We think, however, that at least one growth composed of striped fibres has been described in the heart, and and if this be so the heterology of "rhabdomyoma" is not invariable. In connexion with renal sarcoma there is to be found a description of adrenal tumours, the analogy of which with thyroid tumours is one of the most remarkable facts in oncology. That a malignant tumour should simulate the structure of organs so specialised as the adrenal and the thyroid is difficult of explanation on any hypothesis. The two brief chapters on the Zoological Distribution of Tumours and on the Origin of Tumours, which close the work, may, we trust, be expanded in the next edition. They contain facts and opinions which so thorough a student of the subject as the author of this book could well amplify with advantage and profit to the science which is already so much indebted to his researches and thought. Indeed, teeming as the book does with facts, there is room for much additional matter relating especially to the histology of tumours. The brief but practical remarks upon the treatment of tumours which are to be met with in various parts of the work are general rather than special, and are well summed up in the aphorism with which the book concludes, "Thorough removal of the tumour, wherever this is possible, at the earliest possible moment." The work is one which will enhance the reputation of its author as a surgeon and pathologist. It would give a poor conception of the book if we did not refer to the wealth and beauty of its illustrations. The great majority of these are original, and they are all well-selected and instructive. They are taken from all sources; the museum collection, the hospital ward, and the menagerie each and all contribute their quota to enhance the value and interest of a work which must have entailed on its author the expenditure of infinite labour and patience and which there can be little question will rank high among works of its class.

A Treatise on Nervous and Mental Diseases for Students and Practitioners of Medicine. By LANDON CARTER GRAY, M.D. Philadelphia: Lea Brothers and Co. 1893.

THIS book, as its title implies, is written with a high aim. It is in one large volume, comprising three parts. The first part consists of two chapters, the first of which deals with the anatomy of the nervous system and cranial topography, the second being devoted to the uses and methods of electrical treatment in nervous diseases; the second and third parts, however, constitute the bulk of the book, and on the merits of these its reputation must rest. The second part deals with nervous diseases as affecting the nerves, the spinal cord and medulla, and the cerebrum, or as appearing in the form of what are known as neuroses and functional disorders, although the latter term does not appear to be used. In this section special chapters are devoted to what may be regarded as unclassified diseases, and among these the author includes such conditions as Menière's disease, Friedreich's ataxy, myxœdema, and acromegaly. We may just note in passing that we do not understand the reason for considering Friedreich's ataxy apart from spinal cord diseases, for, whatever the ultimate pathology of the condition may be, the changes in the spinal cord are well recognised and universally acknowledged. The third part of the treatise deals with mental diseases.

It may be recognised at once that the work in its general characteristics has much to commend it. It shows the author to be a man of wide reading in his subject and of extensive practical experience; but these very facts make it all the more regrettable that he should have allowed certain more or less obvious blemishes to appear in the work which materially reduce its value and impair its authority. One of these is in the section which deals with progressive muscular atrophy, which term is considered as synonymous with (amongst others) chronic muscular dystrophy and myopathic atrophy. In the terms themselves there is nothing to indicate any error in such a course, but on the other hand in English writings the one term has been restricted to a spinal disease with a recognised pathological anatomy, while the others are reserved to indicate a totally different condition which is not spinal; and besides, such a classification leads naturally to an omission of the fact—now proved almost to demonstration—that the juvenile type of Erb and the Landouzy-Dejérine type, also known as the facio-scapulo-humeral type (both of which are in this book included under progressive muscular atrophy) and pseudo-hypertrophic paralysis are all forms of one condition—a condition characterised by muscular dystrophy without characteristic spinal lesions. The close relationship (according to some, the identity) of progressive muscular atrophy and amyotrophic lateral sclerosis is scarcely considered; of the latter it is stated that the atrophy "is invariably of the whole body of the muscle, and not fibre by fibre as in progressive muscular atrophy." Another statement which cannot be allowed to pass is in regard to cerebral abscess. On page 358 it is stated that optic neuritis is occasionally seen in cerebral tumour, "never in cerebral abscess." Such a statement is, of course, incorrect.

It is an ungrateful task to go through a book such as this, on which much labour and care have evidently been expended, and to feel bound to point out its inaccuracies. The author in his preface tells us that "it is certain that Europeans in investigating disease regard the patient simply as its vehicle, whilst Americans go one step further and deem the cure all-essential." It would be easy to dispute such a statement, but we have no desire to enter on what we may call an international controversy. We merely mention the statement as probably accounting for the inclusion in the text of certain more or less useful prescriptions when the subject of treatment is under consideration.

The book, as we have already hinted, is well arranged, the paper is excellent, and the typography exemplary. The illustrations also are good, although the reproductions of microphotographs of the spinal cord leave something to be desired. An admirable feature of the work is a very comprehensive bibliography of the subject at the end of each chapter.

Diseases and Injuries of the Teeth. By MORTON SMALE, M.R.C.S., L.S.A., L.D.S., and J. F. COLYER, L.R.C.P. Lond., M.R.C.S., L.D.S. London: Longmans, Green, and Co. 1893.

THIS manual, though containing nothing very new or startling, gives a fair description of the art and practice of dental surgery as taught in our dental hospitals. Its chief characteristic is that it is thoroughly up to date and in this respect should be particularly useful to students, whilst at the same time its conciseness and lucidity cannot fail to render it of value and interest to practitioners of medicine. The authors have successfully attempted to give the views of different authorities where they are opposed, without obtruding their own particular opinions too far, although not omitting to state them. Both the pathological and practical portions are accompanied by numerous well-executed illustrations, which form a feature of the book, and the index is fairly full, though the subjects might be given under more

varied heads with advantage. In the introduction, while discussing the causes of the degeneration of the teeth, it is truly stated that "the teeth of the future depend upon the mothers of the future, the responsibility of maternity being very great in this direction." Touching on the delicate question of fees, the authors insist strongly upon the dental surgeon fixing the remuneration for his services for his skill and experience and not at so much a tooth according as to whether gold or some other material is used—in fact "selling materials." Apart from the diseases of the teeth themselves, including irregularities, the chapter on which subject is of an exceptional all-round character, a relatively large space is devoted to diseases of the gums, tongue, and jaws. Sutton's classification of odontomes is followed in preference to the older one of Broca, and there is a typical series of illustrations, taken mostly from specimens in the Odontological Society's Museum. The term "dead teeth," meaning pulpless teeth, which is unscientific and inaccurate, is as a rule rigidly tabooed; yet so commonly used is the expression, both by dentists and the public, that it crops up now and again in this work. Curiously enough, when speaking of extraction, only nitrous oxide gas and ether are mentioned as anæsthetics, no reference being made to cocaine or ethyl chloride. Within the limitations of their work the authors are to be congratulated.

THE EIGHTH INTERNATIONAL CONGRESS OF HYGIENE.

THE Eighth International Congress of Hygiene and Demography will, according to the resolution of the last congress—which, it will be remembered, was held in London in August, 1891,—meet at Budapest from Sept. 1st to 9th of this year. An invitation has been issued requesting that members of all countries should, as soon as possible, notify their intention to be present and state on what subjects they propose to read papers. A most formidable list of subjects has been drawn up. We trust that this list is only suggestive, and that there is no intention whatever of dealing with all the questions indicated. It is very essential that the organisers of the Budapest congress should take warning from the shortcomings of the London congress. There never was so magnificent a congress as that held in London, and yet it was probably the one which achieved the least practical good. From the English point of view it was, perhaps, all that the majority of British members expected or desired. In England the pressure brought to bear on the multifarious authorities concerned, in order to secure sanitary reforms, is gradual and general. It does not come from any one source, any one organisation, still less from any one congress. It is a consensus of opinion that finally renders a question ripe for legislation or realisation. This is not so, however, on the Continent. In many instances there is no public opinion to force forward a sanitary measure. What influence of public opinion should we find in matters of sanitation in, let us say, Turkey, Russia, or the various Danubian principalities? Yet there are in such countries intelligent statesmen who are anxious to enact the best possible laws on questions of public health; but for guidance they must look abroad, as for the most part they are not themselves technically familiar with questions of sanitation. If it were possible to approach such Governments or statesmen and represent to them that, for instance, more than 3000 specially qualified delegates had met in London, representing all the nations and most of the Governments of Europe, together with many countries in other parts of the world, and that this most important gathering of hygienists had, at a general meeting of the whole congress, carried with practical unanimity a resolution urging that vaccination should be rendered obligatory, or that quarantines should be replaced by medical inspection, undoubtedly such an authorised expression of opinion would result in legislation. Unfortunately nothing of the kind was done at the London congress, and thus in this country we failed to carry out the most useful example given by the preceding congresses. Though we boast that we are essentially a practical people it would be most difficult to say what was the practical result of the congress which met in London. We should be very sorry for the well-meaning statesman, who, being entrusted with the government of some new nationality, took up the report of the London International Congress of Hygiene so as to see what public health laws he might enact with the certainty of general approval on the part at least of the great majority of hygienists. Yet the mission of such congresses is not only to give indications of this description, but it is more especially to decide what international measures could be carried out for the protection of public health. This is why nearly all the Governments send official delegates. Consequently, there should be plenary meetings of the congress, so that a collective opinion may be expressed and a series of short, clear and simple resolutions adopted. At such plenary meetings only questions that are thoroughly ripe should be brought forward. An international committee ought to be appointed to draw up a report and frame resolutions on each of these questions; and such reports should be published with abbreviated translations at least six weeks before the congress meets. Every delegate would then know on what he will have to pronounce an opinion and would have time to give notice of any intended amendment. The resolutions carried at these plenary meetings would, as congress succeeded congress, constitute an intelligible and brief chronicle of the growth of opinion in the civilised world. Thus, when these congresses first met the necessity of imposing quarantine against cholera would have been carried by a large majority; but to-day such a proposal would in all probability be defeated by an equally large majority. On the other hand, there are many questions not ripe for an international expression of opinion and there are many new questions. This is the class of subject which should be referred to the sections. Here, also, all who have special hobbies would have an opportunity of ventilating their ideas. The sections should be the nurseries for the development of questions that are as yet in their infancy, and as such they would render the very greatest service, for an infant may grow into a giant. There are also a considerable number of sanitary reformers whose useful ardour would be damped if they had not an opportunity of speaking, and there is the young generation which has still to win its spurs. In the work of the sections these forces will find a field for their energies, for it is very evident that only a few of the best-known and most influential speakers can hope to address the plenary meetings. We trust, therefore, that the enormous list of subjects presented to us by the circular of the organising committee for the Budapest congress will only be taken as suggestions, that there will be no attempt made to discuss them all, and that from four to six of these questions will be selected for afternoon meetings of the congress as a whole. If there is not a hall of sufficient size to be had, perhaps a theatre might be obtained in the daytime for such a purpose. The congress ought then to express its opinion with no uncertain voice on a few of the most-needed sanitary measures.

We will not now discuss what these questions might be. It suffices to say that they should be questions that are well to the fore, and as far as possible international questions. As for the rest of the work, the only objection to the holding of many sectional meetings is the difficulty of finding efficient translators. The Hungarians, it is true, are very proficient linguists, still it is doubtful whether even they are capable of supplying translators for the nineteen sections into which it is now proposed to split up the congress. These sections are entitled the sections of Infectious Diseases, Causation, and Bacteriology; the Prophylaxis of Epidemics, Hygiene of the Tropics, Agricultural and Industrial Hygiene, the Hygiene of Childhood, School Sanitation, Food Supply, Urban Hygiene, the Sanitation of Public Buildings, House Sanitation, Sanitation in respect to Railways and Ships, Military Hygiene, The Red Cross Society's Work, Saving of Life, State Hygiene, Physical Exercises, Sanitation and Bathing, Veterinary Work, and Pharmacology. This list does not, it will be seen, include the Demographical division of the congress. There are about twenty questions suggested for discussion in each of these sections, so that no one need be at a loss for a subject to speak upon. The congress will be under the "high patronage of His Imperial and Apostolic and Royal Majesty." Count Stephen Károlyi is the President of the congress and the President of the Organising Committee is Councillor Charles Kamermayer, Burgomaster of Budapest. Professor Dr. J. Fodor is President of the Executive Committee, and all communications should be addressed to Professor Dr. C. Müller, Secretary-General, at the Rochus Hospital.

THE LANCET.

LONDON: SATURDAY, JANUARY 27, 1894.

ONE of the most important questions which the Royal Commission on Vaccination may be expected to determine from the evidence adduced before it is that which concerns the efficient performance of vaccination, and it is earnestly to be hoped that they will suggest methods for universally securing this efficiency; for it is undoubtedly the case that no small proportion of the vaccinated community are so imperfectly inoculated that they are but little removed, as regards protection from small-pox, from those who have never been submitted to the prophylactic. There is, we believe, an increasing and lamentable laxity in this regard, which can only be explained on one of two alternative hypotheses. Either there is a decline in the faith of the efficacy of vaccination, or else there is a tendency to regard the measure as one which requires little care and no precise method in its performance. In the face of the large body of statistical evidence to the value of vaccination as a most valuable weapon against the inroads of small-pox it is surely impossible for the medical profession to lose faith in it. The practice has been attacked in recent years on all sides, by men of science as well as by those who have conscientious scruples against its use; but none who have been brought face to face with the malady can deny the potency of the remedy. In passing be it noticed that a leading journal of Leicester[1] this week is actually congratulating the people of that town upon having escaped a heavier visitation of small-pox than was anticipated; there is no mention, however, of the fact that those attacked included an unduly large proportion of children, and that the fatality was chiefly amongst them. Not one child under ten years of age who contracted the disease had been vaccinated, and not one such child who had been vaccinated contracted the disease. We heartily concur in the meed of praise which is awarded by the writer of that article to Dr. PRIESTLEY, the medical officer of health, and to the sanitary officers working with him, and we regard the comparative limitation of the outbreak as largely owing to the prompt notification and equally prompt measures of isolation, &c., that have been carried out in Leicester; but surely the lesson of this outbreak is that all this vigilance is baffled and hampered in a community that disregards the fact that vaccination and re-vaccination are measures of equal or even superior importance in checking the progress of small-pox to the proceedings which constitute what is vauntingly paraded as the "Leicester system."

We take it that in the medical profession as a whole, and amongst those especially who have had experience of small-pox, there is no decline of faith in the efficacy of vaccination. Is it, then, regarded as an operation which can be performed perfunctorily, and one in which, no matter how it is done, the efficacy is just as potent as when it is carefully practised? We venture to doubt the existence of any widespread opinions of this class. A correspondent has drawn our attention to an advertisement in a London evening paper, which is headed "Vaccination" and gives an address in the West-end, where vaccination is performed in "only one small place" on the infant's arm: "pure calf lymph used." In these few words we have the expression of the unfounded prejudice which has been raised against the proper performance of vaccination. A child vaccinated in this manner is very imperfectly protected, and yet will be probably certified as a case of "successful vaccination." Few figures are more convincing than those which have been adduced from the records of small-pox hospitals showing that the number of marks that are produced in vaccination are directly related to the degree of immunity conferred. The recommendation that there should be at least four vesicles having a collective minimum area of half a square inch is one which is based on sound deduction. The fact is that by many people (not, surely, medical practitioners) vaccination is regarded much as a rite that every infant born into the world has to be submitted to, and therefore they see no reason why one method should be preferred to another.

Lastly, it should never be forgotten that vaccination is of the character of a surgical operation, for which success can only be obtained by the exercise of care and skill. Trivial as it may seem when measured by the side of the terrible disease which it is designed to avert, it involves, if carelessly performed, risks and dangers of its own. Vaccination in "one place" is no protection against these evils, for septic infection bears no relation to the area of the breach of surface whereby the poison may gain entrance into the blood. Care in the operation itself and in the after-management of the wounded arm affords the best safeguard, and for this reason we think that the practice of vaccination should be itself safeguarded by more complete and thorough methods of instruction and of inspection than at present obtain.

AT their last meeting the Manchester city council had before them the report of a special committee to consider the question of the appointment of a medical officer of health for the city in the place of Dr. TATHAM, who has recently been appointed Superintendent of Statistics at Somerset House. The appointment of a successor is, from the point of view of the public health, a matter of the utmost importance, for Dr. TATHAM has inaugurated schemes of considerable magnitude for the improvement of the sanitary condition of the city; he has also been at considerable pains to organize a complete and effective sanitary administration and has set out with precision the lines upon which the battle against disease and death may be waged with a reasonable prospect of success. For these reasons, we repeat, the selection of a successor who shall possess the needful ability and tact is of the first importance to the welfare of the city; and we had entertained the hope that the council would undertake to offer such terms as would induce the very best men to become candidates for the post. On reading in the local papers the report of the recent proceedings of the council, we confess to a feeling of great disappointment at the manner in which the subject has been dealt with by the

[1] Leicester Daily Post, Jan. 22nd, 1894.

corporation. Its importance has been minimised. In regard to the salary to be offered to the new medical officer of health an unseemly wrangle took place, which could only be productive of pain to those present who did not see fit to engage in it. The episode, however, shows with sufficient clearness how ill-fitted are the majority of the Manchester city council to appreciate the true value to the citizens of a medical officer of health.

After three divisions on as many proposals to degrade the office by reducing the salary to a ridiculous amount, the special committee's recommendations were adopted by a bare majority of the council, and the new medical officer of health is to receive the wholly inadequate salary of £850 per annum. This we understand to have been the exact amount paid to the late medical officer on his appointment five years ago, when the area of the city was but half of what it is at present, and its population only 360,000 instead of 520,000. We do not hesitate to characterise this decision of the Manchester city council as most ill-advised and unfortunate, and as one which those members of the corporation and their successors who are really interested in the sanitary welfare of Manchester will regret for many years to come. By their own deliberate act, and in defiance of the counsels of their medical colleagues, the council are likely to exclude from competition for the post the very best men in the sanitary service. The salary is considerably less than the sum which has been paid for many years past by the cities of Liverpool, Birmingham, Dublin, and Glasgow; and possible candidates of the right class are not likely to miss the true import of the discussion at the last council meeting of the Manchester corporation, which has unfortunately been fully reported in the local papers. In fact, we have been informed that more than one experienced health officer has already decided to abandon his intended candidature on hearing the conditions attached to the Manchester appointment.

The worst, however, has yet to follow. By their short-sighted and parsimonious policy the corporation have clearly shown that in their judgment a sanitarian of the highest class is not required for the public health service of Manchester. That the corporation are not averse to the payment of reasonable salaries in other departments is shown by the fact that several of their chief officers now receive salaries of £1000 a year and upwards, one of them enjoying a stipend of £1750. We are, therefore, reluctantly driven to the conclusion that the majority of the council do not care to see the best kind of sanitary work carried out in their city, and that accordingly they have determined, in the teeth of wiser counsels, to fix the emolument of the new medical officer at a figure which does not represent the worth of the highest and best talent in that branch of the medical profession which deals with public health.

IN these days, when a quite uncalled-for modesty leads a great many worthy Britons to belittle the achievements of their countrymen, and to see, for instance, in the drama of Norway, the fiction of France, and, in no less marked a degree, the microbiology of Germany, heights which their own nation cannot explore and depths it knows not how to plumb, it is pleasing to meet with a cordial recognition of British work from some foreigner whose reputation and position give authority to his dictums. It was with such a recognition of the value of British work that Herr JOSEPH KÖRÖSI, Director of Municipal Statistics at Budapest, commenced his recent communication to the Royal Society upon Natality, when he pointed out that both branches of the science of demography—natality as well as mortality—had their early roots in British soil. It was in 1665 that the Royal Society published the first work dealing with these subjects, when they issued the third edition of the celebrated treatise, "Natural and Political Observations upon the Bills of Mortality," by JOHN GRAUNT, one of their first members—a work which has, on the autocratic but somewhat inaccurate authority of MACAULAY, been widely credited to Sir WILLIAM PETTY. In 1693 EDMUND HALLEY, Secretary of the Royal Society, and later Astronomer-Royal—but for whom it is more than possible that NEWTON'S "Principia" would never have seen the light—by compiling the "Breslau Table of Mortality" originated the science of life statistics, as we now understand it. These tables of mortality showed for the first time how to measure the probability of death for each year of human age, and represent the practical beginning of all the duties now undertaken by our statisticians and actuaries.

But the other great division of vital statistics—the section that deals with the repair that is coincident with the decay—is still in want of corresponding tables demonstrating the measure of probability of birth for each of the age-combinations of the parents. With this aim in view Herr JOSEPH KÖRÖSI, who, it will be remembered, took a prominent part in the treatment of similar topics at the International Congress of Hygiene and Demography held in London in 1891, has tabulated the ages of the 71,800 married couples whose names appear in the Census of Budapest for that year, and has communicated the interesting result of his labours to the Royal Society. He took the number of productive years sexually of the average man as forty-five and of the average woman as forty; wherefore the possible number of different age-combinations would be the product of these numbers, or about 2000. Bearing this in mind, he instituted inquiries and made observations concerning all the births for the two years on either side of the date of the Census, and allotted the 46,931 births, of which he thus obtained particulars, to their respective age-combinations. Division of the result by 4 yielded, of course, the yearly probability of births for each of these age-combinations of parentage. In his task Herr KÖRÖSI was quite alive to all the probable sources of fallacy, sources which in all statistical research are known to be so numerous that they have given rise to a well-quoted saw; but which in this particular investigation were not much in evidence. Legitimate natality must be regarded as a resultant between two main forces—instinct and moral restraint. Instinctive fertility was found, as would have been expected, chiefly in young newly-married couples, moral sterility exercising immense influence in advanced age-combinations, much tempered in cases where one or other party enjoyed comparative youth. From this we see that each productive epoch in the male or female has two values—its value under circumstances of physiological licence, and its value under circumstances of psychological restraint. Out of a large number of data in proof of this

we select some figures to exemplify Herr KÖRÖSI'S interesting results:—From the age of thirty to that of thirty-four, the actual fertility of the father is 27·1 per cent., while the physiological fertility, derived from the observation of couples where moral restraint would be presumably absent, was 27 per cent. Between these same ages the actual fertility of the mother is seen to be 20·6 per cent., and the physiological 32·9 per cent.; and in each instance, male and female, the difference between the degrees shows the influence of the moral factor, the few cases of procreative exhaustion excepted. Again, from the age of forty to that of forty-four the actual fertility of the father is found to be 13·8 per cent., and the physiological 21·1 per cent.; while the actual fertility of the mother falls, as would be expected, to 5·9 per cent., and the physiological to 20·4 per cent. Here the figures of the female have certainly been much swayed by physical conditions, while those of the male show him to have acquired comparatively great moral restraint. For husbands of thirty-nine years of age, according to Herr KÖRÖSI'S figures, the probability of becoming a father with a wife aged twenty years is 31 per cent., and with a wife aged thirty 20 per cent. For husbands of forty years the probability of becoming a father with a wife of the same age is 17 per cent., but with a wife of forty-five years it is only 2½ per cent.

Investigations into natality are not, and never can be, of the same scientific importance as life-tables; for the death-rate depends largely upon natural laws—cases of suicide forming no exception to this fact—while the rate of fertility is, in the main, regulated by voluntary causes not susceptible of tabulated proof. Nor are investigations into natality to be made so easily and with the same publicity as those which deal with mortality. We do not underrate the invaluable labours of the statisticians of mortality by saying this, for their task does not begin until the figures have been collected, and it is the deductions and not the acquisition of the facts over which their brain-work is spent. In inquiries into the statistics of natality the opposite, as yet, prevails. The number of modifying circumstances—we do not refer to psychical phenomena—calculated to upset the deductions to be drawn from birth-figures are, up to the present, few, and that side of the work should be correspondingly simple; but the task of collecting the facts calls for an amount of delicacy and discretion upon which we need not expatiate. As Herr KÖRÖSI has said, however, the problems of over-population or de-population are as much the effect of the statistics of birth as of those of death, so that it must be worth while to make proper inquiry into the laws which govern the figures of natality also. We congratulate Herr KÖRÖSI upon having made so practical a start in a new section of the work of which he is a distinguished pioneer.

THE columns of THE LANCET have recently borne witness to the perennial interest with which typhoid fever is regarded. The disease is so endemic in our midst, so variable in type, so complex in its manifestations, presenting so many difficult and doubtful problems in therapeutics, that discussion about it is never inopportune and is seldom wholly barren. Disease is protean, and among the most protean of diseases is typhoid fever. We need to be on our guard against admitting any rigid rules regarding its manifestations and to keep a very open mind as to the possibility of an almost unlimited variety of type. Students and young practitioners, who are too often guided by those typical cases which are so common in text-books, so rare in actual practice, frequently begin with the conviction that an abrupt onset is almost exclusive of typhoid fever; yet it is quite certain that, while a gradual commencement and a slow ingravescence of symptoms constitute the very general rule, the invasion may be absolutely abrupt. Again, the importance of the early recognition and the deceptive nature of the initial symptoms have been much dwelt on recently in our columns, and few subjects are more important. By neglecting the premonitory symptoms, by reckless purging and improper diet, and by imprudent exercise, patients suffer great and often quite irreparable damage. Yet to distinguish incipient typhoid fever from influenza, a feverish cold, or a bad "bilious" attack, may for a few days baffle the most skilful observer. The steady and careful use of the thermometer is the only safe guide, but frequently patients do not give the practitioner sufficient opportunity for observation. The medical practitioner should be on his guard when a patient complains of chilliness, frontal headache, lassitude, anorexia, and perhaps a little diarrhœa. These symptoms may indicate no grave affection, but they justify him in keeping the patient in bed and in exercising the greatest vigilance regarding the possible development of clear evidence of typhoid fever. It is an unfortunate fact that the vague and mild cases of this disease yield a high proportion of instances of perforation and sudden death, no doubt because the strict *régime* necessary for the successful management of such cases is not sufficiently enforced. It is well for the medical man to remind himself that no constant ratio subsists between the severity of the clinical signs and the gravity of the intestinal lesion. This fact is sufficient to urge him to exercise the utmost caution in the treatment of mild and, perhaps, doubtful cases. Any want of decision on his part in such cases will certainly sooner or later prove disastrous.

The therapeutic problems which surround typhoid fever are extremely interesting and are far from having received a final solution. Is a purely milk diet desirable, or a diet of broths and meat juices, or a combination of these? Is antipyresis often needful, and, if so, is it best to trust to the cold bath and the wet pack, or to quinine, antifebrin, and phenacetin? Is disinfection of the bowel a legitimate object of treatment, and how may it most safely and effectively be carried out? What is the value of alcohol in this disease, the most suitable form for administration and the correct dosage? Such are a few of the many questions that might be put, to which the most various answers would probably be returned by medical men of skill and experience. We naturally turn to the recently published lectures of Sir WILLIAM JENNER for light on these points. As regards diet we find the following: "The patient should be restricted to liquid diet, to farinaceous food, and bread in some form if the appetite requires it. It is better to vary the broths and to add to them some strong essence of vegetables. ..... The value of milk as an article of diet in fever is generally admitted, but it requires to be given with caution. The

indiscriminate employment of milk in almost unlimited quantities as diet in fever has led to serious troubles." As regards antipyresis, the revered writer does not favour heroic methods. "The treatment of typhoid fever by cold baths when the temperature reaches 104° or even less is very generally adopted in Germany, but neither my own limited experience nor the evidence adduced by others in its favour has carried conviction to my mind of its advantage. At the same time I entertain no doubt that the direct cooling of the body is in some cases essential to the preservation of the life of the patient—gives him, so to say, his only chance of recovery." As regards the use of alcohol, Sir WILLIAM JENNER writes: "I may sum up my experience in regard to the use of alcohol in the treatment of typhoid fever thus. Its influence is exerted principally on the nervous system, and through it on the various organs and processes—for example, the heart and the general nutritive processes, changes on which the rise and fall of temperature depend. In judiciously selected cases it lowers temperature, increases the force and diminishes the frequency of the heart's beats; it calms and soothes the patient, diminishes the tremor, it quiets delirium, and induces sleep. It should never be given in the early stage of the disease, or with the hope of anticipating and so preventing the occurrence of prostration and debility, but should be prescribed only when the severity of special symptoms or the general state of prostration indicates its use. ..... It should not be prescribed when a sudden gush of blood has induced faintness, unless the faintness is so great as to threaten life immediately. Nor should it be given when, after the first few doses, the temperature rises, the heart's action becomes more frequent or more feeble, delirium increases, sleeplessness supervenes, or drowsiness deepens so as to threaten to pass into coma. ..... Nearly all the good effects of alcohol, when its use is indicated, are obtained by four, six, or eight ounces of brandy in twenty-four hours."

These rules will generally commend themselves, but on one or two points we may venture a remark. Since these words were originally penned in 1879, the evidence regarding the good effects of the external application of cold in typhoid fever has certainly been strengthened. The cold bath does not seem to grow rapidly in favour in this country, in spite of its very general adoption on the Continent; but cold sponging is seldom objected to, and its efficacy is considerable. The continuous use of antipyretic drugs in this disease is certainly a bad practice, though there can be no objection to an occasional dose of quinine or phenacetin if the symptoms demand it. On the alcohol question we can add nothing to Sir WILLIAM JENNER'S wise and sober summing up of a very difficult question. We must avoid the snares of over-dosage, on the one hand, and, on the other, of neglecting a potent and efficacious remedy.

THE general council of the Royal British Nurses' Association has conferred the Princess Helena Gold Medal of Merit for Nurses upon Mrs. Bedford Fenwick, in recognition of her great services to the corporation in the advancement of nursing in this country, and of the signal success with which she filled the position of president of the British Nursing Section at the World's Columbian Exposition at Chicago.

Annotations.

"Ne quid nimis."

THE INTERNATIONAL SANITARY CONFERENCE OF PARIS.

THE French Government have postponed the meeting of the International Sanitary Conference, which was about to assemble in Paris to consider the measures necessary to control cholera in the Red Sea and the Persian Gulf in connexion with the pilgrimage to Mecca and Medina, and the date now fixed is Feb. 7th. The arrangements seem hardly to be matured by any Government except that of France, and no final information has yet been obtained as to who will be the delegates, other than the French ones whose names were published in THE LANCET of Jan. 20th. An announcement has been made to the effect that the Turkish Government were not prepared to take part in a conference which must have largely in view an interference with their government of the ports and towns in Arabia; but our inquiries in Paris lead us to believe that this attitude, even if it was originally adopted, will not be maintained. The representation of the British and Indian Governments does not appear to be yet decided, although it is generally known that both diplomatic and technical delegates will be appointed for the purpose. The considerations involved in this Conference are of the utmost importance: sound principles of public health must be upheld, modern etiological research with regard to the natural history and micro-pathology of cholera must influence any conclusions laid down, and at the same time special precautions may reasonably be required in view of the special circumstances of the pilgrimages in question. The extent to which regulations of this character can be imposed at our Indian ports involves a number of social and political questions that are by no means unlikely to require exceptional judgment and discretion, and the adoption of any material changes must also involve considerable expenditure on the part of a number of governments concerned, and notably as regards the Turkish authorities. But whatever can properly be done to prevent the pilgrimages becoming centres for the diffusion of cholera should be required of all concerned.

THE MANSION HOUSE COMMITTEE ON THE DISTRESS IN THE METROPOLIS.

THE report of the Mansion House Committee on the existence of distress in London is a disappointing document—at least, if judged from the public health standpoint. Practically, it amounts to this: that there is no exceptional distress and that there is nothing to be done; but that, if people will persist in trying to help those who suffer, no new schemes should be attempted, and what money can be spared must be given to the established relief agencies. The first obvious criticism that suggests itself is that the basis on which these conclusions are built is, by the committee's own showing, incorrect. They say that the distress, owing to lack of employment, "is not much greater than is usual at this season of the year, that the distress is chiefly among the casual labourers," and that it may be described as chronic; yet they publish the monthly returns showing the percentages of unemployed members of twenty-three of the largest trade societies in the United Kingdom paying unemployed benefits, and for every month given the proportion of the unemployed was much greater than in any year since 1887. As one example, in January of that year the proportion of the unemployed was 9·9, in 1890 only 1·75, in 1892 4·37, and in 1893 10·2 per cent. It is very evident that when these records of the "aristocracy of labour" show an

exceptional number of unemployed in their ranks all the lower grades of labour are likely to suffer much more. That this is so is shown even by the Poor-law returns, though it is never safe to base a calculation as to prevalent distress on Poor-law statistics. We know full well that the majority of the population will endure the most acute suffering rather than apply for relief under the Poor-law. If the number of inmates in the workhouses increases it is very strong evidence of the existence of exceptional distress; but if it does not increase it is no proof that exceptional distress does not exist. But for this present moment we have the double proof—namely, that given by the unemployed in the skilled trades, by those who do not gravitate towards the workhouse and by those who are driven to this last resource. Having, in spite of these very significant facts, come to a conclusion contrary to that which they indicate, the Mansion House Committee seem to be of opinion that nothing particular should be done for the unemployed. The improvident, the idle, and the vicious are to be left to their own devices and till such time as it may please them to seek a more peaceful existence in the workhouse. Whatever the sociologist may have to say on this way of dealing with the really pressing and difficult phase of the problem, from the public health standpoint we must urge that it is not the way to reduce the insalubrious conditions under which these people live. We shall not get rid of the professional tramp by saying that he is unredeemable; yet the report leaves him entirely to the Poor-law, just as if the incompetency of this institution had not been sufficiently demonstrated. For years, if not for centuries, the Poor-law guardians have dealt ineffectually with the subject. We are told how to help the thrifty and the worthy poor; but we stood in no particular need for advice on that phase of the question. It is the improvident, the idle, the loafing, and the vicious classes that we have to deal with. They crowd in slums and rookeries, they defy the public health laws, and they convey disease from place to place. What can be done with them? and, if they are really incurable, are their children equally hopeless? There is a law in France for the adoption by the State of the "morally abandoned." There are admirable farms, agricultural schools, and institutions where the waifs and strays of the great cities are converted into skilled agriculturists and brought back to the soil. Similar organised attempts to deal with the subject systematically and thoroughly are in flourishing existence in more than one of the highly developed American States—for example, in New York and Massachusetts. Why has not the Mansion House Committee devoted their energies to some such remedial schemes? Before throwing cold water on the few suggestions and attempts that have been made, better proposals should be brought forward. We are the wealthiest country in the world, we have the best sanitary laws and the most widespread knowledge of the principles of hygiene; yet people die from starvation in our midst, and there is with us a "submerged tenth" living under the most unwholesome and horrible conditions. Any innovation likely to succeed would meet with very enthusiastic support, yet the Mansion House Committee have only the workhouse to suggest—and this, too, without proposing any kind of Poor-law reform.

MISDIRECTED ENTERPRISE IN ADVERTISING.

WE are informed by a surgeon at one of the general hospitals that a firm of instrument makers have been advertising their wares in a most objectionable manner. A boy was recently admitted to hospital with a compound comminuted fracture of the leg, for which amputation was performed. The case was a serious one, and there was much shock, with considerable after-depression—a state in which it is, of course, advisable to keep the patient free from all injurious influences, whether physical or mental. A few days after the accident this boy received by post addressed to him the illustrated catalogue of artificial limbs as made by the firm of instrument makers, and realised for the first time that through the accident he would never be able to walk naturally again. The effect was very marked and it undoubtedly retarded convalescence. We do not give the name of the firm, but would merely draw attention to the fact. The old-established firms know that the patients themselves when treated in hospitals have no control over the instrument maker, the hospital authorities being entirely responsible for apparatus supplied. It is supposed that the patient's name was obtained from the newspaper which gave an account of the accident, and the firm thought, doubtless, that they were doing rather a clever thing. When they learn that the result of their action has been to cause much mental distress to the patient and to retard his recovery, as well as to decide those in charge of the case to determine not to give any order whatever to so enterprising a house, and realise that this result is likely to happen every time, they will probably return to the more beaten paths of the advertiser and not repeat the offence. A method of advertising calculated to diminish rather than increase the *clientèle* of the advertisers—as this undoubtedly must—is not likely to be long continued.

PROFESSOR BACCELLI ON THE STUDY OF LATIN.

"LA BELLA BASTARDA," as Lord Byron designated the modern Italia, has of late years been rather neglectful of her Latin mother; has, in fact, treated her as the "injusta noverca" of the Roman satirist rather than as the parent to whom she owes her finest and most characteristic features. The truth is that the study of Latin in Italy has for the last generation been passing through a period of transition; it has ceased to be the purely rhetorical discipline it had degenerated into being, and has been trying to assume the scientific, or severely philological, exercise it has become chiefly under German inspiration. The Roman writers, no longer studied as masters of style, as repertories of noble sentiments nobly expressed, have been made too exclusively the exemplars of linguistic morphology and syntactical construction, have simply been dissected and built up again in illustration of grammatical law, till every interest in their thought or subject matter has evaporated. To this change, brought about by teachers and professors who have long felt the inferiority of Italian to German scholarship, the youth of Italy have never taken kindly and the consequence has been this: that the study of Latin has become, if not actually repulsive, certainly distasteful, in school and college, and that while far from attaining the scientific value aimed at, it has lost the literary and rhetorica charm which always secured it a place in liberal education. Successive Ministers of Public Instruction have remarked and deplored this falling off in what has hitherto been a national boast; insomuch that last autumn the ex-Minister, Signor Martini, appointed a commission of Latin professors to consider the evil complained of and to devise means of obviating it. Their observations and proposals were embodied in a circular issued on Oct. 20th, and adopting this as his text, Professor Baccelli, the new Minister of Education, has addressed to the presidents of "licei" and the directors of "ginnasi" a series of "recommendations for the better study of Latin." Yielding to no mah in reverence for science and scientific method, Dr. Baccelli thinks that the "secondary school" is not the place for either; that the young scholar should, at that stage, have his moral interests awakened and stimulated by contact with what is nobly impressive, with what is generously inspired, in thought and action. "Cherish the beautiful, the useful will take

care of itself," is an axiom of the great Humboldt which, on the threshold of scholastic discipline, ought never to be lost sight of. When a real love of learning has thus been created the later and severer tasks of the educational process will have a better chance of being worthily approached and executed. Dr. Baccelli is himself a conspicuous example of the success of the system he advocates. Deeply imbued with the language, the sentiments, and the ideas of the great writers of the late Republic and First Empire, he passed from Lucretius and Cicero, from Virgil and Sallust, from Horace and Livy, from Lucan and Tacitus, to the study of natural phenomena and found the former discipline, intellectual and moral, to be no disqualification for profiting by the latter. On the contrary, while the memory, the imagination, the judgment, and the taste had, by the philological and literary "palæstra," been developed and refined, the mental powers, thus formed and strengthened, approached with interest and assimilated with ease the subjects placed before them on the subsequent grades of the "scala intellectus," and with this result: that when the general had to be supplemented by the special curriculum, the mental training of the student had suffered from no unfortunate omission or regrettable *lâche*, but that in the harmony of evolution, the faculties had been drawn out and disciplined and moulded towards what a great master of medicine has happily called "the complete professional mind." Dr. Baccelli's experience and testimony have, indeed, been those of the *Dii Majorum Gentium* of medicine—of leaders like Virchow and Donders, like Stokes and Christison, like Moleschott and Charcot. His official intervention at a critical period of his country's educational development has been hailed as something providential by all his more enlightened and truly patriotic countrymen. While the study of Latin under his administration will lose nothing of whatever scientific accuracy it has received from German scholarship, it will recover the ground it had lost in the literary and rhetorical sphere and will gradually resume the place it ought never to have forfeited in the secondary schools of Italy.

THE QUESTION OF ALUM IN BAKING POWDER.

AFTER two years' litigation it has at length been decided in the Queen's Bench Division of the High Courts of Justice that baking powder is not an article of food within the meaning of the Food and Drugs Act. The employment of alum, therefore, in baking powder as a substitute for tartaric acid to effect the displacement of carbonic acid gas from bicarbonate of soda does not constitute an offence against the law. The substance of the arguments upon which this judgment was based was: (1) that the sale of alum in itself is not an offence, even though the seller may know the buyer is going to mix it with bread, and therefore the fact of the alum being sold mixed with other things does not alter the position; (2) the presence of ground rice (a common constituent of baking powders made with alum) does not make the powder a food, the rice being merely used as a vehicle; and (3) the purchaser, if he afterwards mixes such powder with food with intent to sell, may commit an offence, although the vendor would not be committing one; again, for his own use, anybody may employ baking powder containing alum, and that being so it would be strange for the vendor to be liable to penalties. Their lordships were careful to add that they did not mean to convey it as their opinion that nothing can be deemed to be an article of food unless made up into an eatable or drinkable form such as flour, butter, salt, mustard, pepper &c., for although no one would be likely to eat them alone, yet they are intended to be consumed by mankind. In offering comment upon the result of this long-vexed question, although we regret the conclusion arrived at, we feel it would be presumptuous, in view of the protracted thought and consideration bestowed upon it by two learned judges of the High Court, not to accept this decision, which is, of course, founded mainly, if not entirely, on the legal aspects of the case; we should fail in our duty, however, if we did not submit a few facts in connexion with the subject, which, in our opinion, decisively preclude the use of alum for the purpose indicated. It is admitted—and was admitted even in the present case—that alum in food is injurious, and especially in the form in which it exists in baking powder after the food containing it has been cooked; and, further, that its addition renders certain essential ingredients (soluble albuminoids and phosphates) inert and indigestible. It is perfectly plain that there can be one, and only one, use for baking powder—viz., that of mixing it with certain food materials in the course of preparation with the object of rendering the final product porous and light. Its ultimate destination, therefore, is the human stomach; but although *per se* it cannot be regarded as a food, yet it is used to fulfil an office in food comparable with pepper, mustard, or salt. The former ministers to appearance and texture, the latter to taste. The truth is, there is no legal definition of baking powder, and in this and in many other respects—e.g., milk—the Food and Drugs Act utterly breaks down; but the present case affords a fitting opportunity of drawing the serious attention of the proper authorities to the existing state of things, with a view to bringing about speedy amendment. While there is a provision in the Act against the use of alum in bread the law, as it stands at present, offers no remedy against the employment of the same agent in baking powder; but in the meantime it is fortunately within the power of the public to provide one, and we earnestly counsel them to use this power by refusing to purchase any baking powder offered for sale unless it is guaranteed to be free from alum. In this connexion we should be glad to have submitted to us the names of all firms professing to supply baking powder free from alum. We will then procure in the open market specimens of the goods and submit them to analysis in THE LANCET Laboratory, and place the result in due course before our readers.

BURSTING BOILERS.

OUR article on bursting boilers, which appeared on Jan. 13th, has been made the subject of considerable comment, and in one or two places of unfavourable criticism, but nothing has been said to convince us that we were otherwise than perfectly correct, within the limitations that we laid down for ourselves. We alluded to two main classes of accident, in one of which we attributed the mischief to sudden access of cold water into a red-hot receptacle. We held that in such cases a safety-valve offered no true guarantee of safety. *Engineering* says practically that the accident does not happen, attributing all the mishaps "without exception" to an accumulation of pressure within owing to frozen pipes preventing escape of steam. Apart from the fact that we did not write about the method of accident that we described without knowing that it actually had happened, we may quote the following passage from "Service Chemistry," by Professor Lewes, Professor of Chemistry in the Royal Naval College at Greenwich:—"This" (he is speaking of the phenomenon of the spheroidal state) "has been shown by Perkins to hold good in the case of boilers, so that if a boiler has been allowed to run dry and the plates have been highly heated, on the entrance of feed-water the first portions assume the spheroidal state, but as more water is added and the plates are gradually cooled, contact takes place, with formation of enough steam, in many cases, to cause explosion." Another contemporary, the *Builder*, in a

kindly appreciation of our remarks as a whole, considers that the opinion that safety-valves are of no use against the sudden pressure caused by water entering a red-hot boiler is a mistaken one, "for experience has proved the contrary in well-attested cases." It would seem, then, that the *Builder* knows of well-attested cases of the condition which *Engineering* considers to have no existence. In support of our position we refer both our contemporaries, who will do excellent service to the community if they will go thoroughly into the subject, to Professor Everett's edition of "Deschanel's Natural Philosophy," where the following comment on bursting boilers is made: "Safety-valves afford ample protection against the danger arising from gradual increase of pressure; but they are liable to fail where there is a sudden generation of a large quantity of steam. This explosive generation of steam may occur from various causes. If, for instance, the water in the boiler is allowed to fall too low the sides may be heated to so high a temperature that when fresh water is admitted it will be immediately converted into steam on coming in contact with the metal." That is very nearly identical with what we said. We made no attempt to sum up the question or pronounce finally upon it—so far from that, we recommended that it should be further threshed out; nor did we make any claim to have exhausted the causes of explosions: but as far as we went we were, we think, correct.

MODERN DERMATOLOGY.

MR. MALCOLM MORRIS, the retiring president, delivered an address before the Harveian Society of London on Thursday, Jan. 18th, taking as his subject "The Dermatology of To-day." In the course of his address he reviewed the present position of dermatology in comparison with that which it occupied fifteen years ago, and claimed that in no department of medicine had more conspicuous progress been made, not only in the details of treatment, but in fundamental conception. The change he considered to be the direct result of the new light which experimental pathology had thrown on the nature of disease processes in general, and on the factors concerned in the production of those processes. He pointed out that bacteriology, which was unlocking the doors of so many secret caves of pathology as simply and quickly as the fabular expletive "Open sesame," had revealed to us the true causes of several affections of the skin, instancing lupus, scrofuloderma, lichen, and erythema—the progeny of the tubercle bacillus—leprosy, and glanders, "whose precise microbic agents are as well known as the itch-mite," impetigo and sycosis. Passing on to treatment, he showed that it followed that the more generally it became seen that skin affections were caused by, or liable to become complicated with, the results of microbic action, the more general must the use of antiseptic applications become; and in external treatment, both in processes and medicaments, he considered the clearest evidence of modern progress in dermatology to lie. Mr. Morris did not speak very eulogistically of any particular therapeutic agent, considering that the wide range of choice of a particular remedy now at the disposal of the dermatologist was only a doubtful benefit, as, for his purposes at any rate, the ideal antiseptic still remained to be discovered. Commenting upon modern improvements in the means of applying remedies to the skin, he pointed out that it was a sign of progress that much more importance should now be attached to local medication than formerly, holding it to be an entirely gratifying state of things that the scientific treatment of even eczema and psoriasis was almost wholly purged from antiquated and mischievous delusions as to the predominant value of constitutional treatment; and in this connexion he expressed contempt for the curious old belief that danger might lurk beneath the rapid cure of a skin lesion. He next dwelt on the wider recognition of the value of local treatment, and the improvement in practical methods employed. He considered the principal step forwards had been made by the wide acknowledgment of the great influence of the nervous system on the production of skin diseases. This knowledge of the intimate pathological connexion between the nervous system and the skin had given the key to the successful treatment of many pathological conditions which had always previously defied local measures. Mr. Malcolm Morris wound up an interesting address by a generous recognition of the English workers in this field.

THE GOVERNMENT CHOLERA SURVEY.

WE understand that the President of the Local Government Board has decided to retain the services for another year of the four temporary medical inspectors who were appointed in January, 1893, on account of the exceptional work which was thrown upon the Medical Department by reason of the European cholera epidemic. This decision, doubtless, also means that the cholera survey of ports and inland districts which has been going on for some ten months past will be maintained, and we hope it will also mean that many local authorities will be induced to remedy sanitary defects before the date at which recrudescence of cholera on the continent of Europe, and perhaps in this country, may be reasonably anticipated. The inspectors in question are Dr. Thomas Horne, Dr. Maclean Wilson, Dr. Wheaton, and Mr. Evan Evans.

TIBBITS v. TOYE.

IN this action Dr. Tibbits sought to recover from the proprietor of the *Charity Record* damages for an alleged libel contained in its issue of May 25th, 1893. The defence was that the article complained of was fair criticism on a matter of public interest, and, secondly, that the statements complained of were true in substance and in fact. Dr. Tibbits claimed to be the founder of the West-end Hospital for Nervous Disease, Welbeck-street. On severing his connexion with its he founded the Massage Hospital at 55, Weymouth-street. The *Charity Record* in its article put various questions which Dr. Tibbits thought were unfair and suspicious and likely to injure him. He was cross-examined as to his name having been struck off the list of Fellows of the Royal College of Physicians of Edinburgh, and the list of the Licentiates of the Royal College of Physicians of London. At the end of the cross-examination of the plaintiff the foreman of the jury intimated that they were ready to give a verdict. The counsel for the plaintiff did not resist their doing so, and the jury found for the defendant.

DR. TATHAM'S DEPARTURE FROM MANCHESTER.

DR. TATHAM'S departure from Manchester to undertake his new duties of Statistical Superintendent of the Registrar-General's Office was, on Jan. 18th, made the occasion of a complimentary dinner to him, whereat many prominent citizens of the great town whose public health he has so carefully and skilfully watched over assembled to testify their regret at their impending loss and their high appreciation of his valuable services. We can well understand that the sentiments, which were formally recorded in the brief address we have quoted below, were thoroughly sincere. For more than twenty years Dr. Tatham has presided over the sanitary destinies of Manchester and Salford, not only with energy and knowledge, but—which is vastly rarer—with perfect tact, forming a connecting link between the educational and municipal institutions of the town, to the great advantage of both. His wide and sound learning, combined with his great business capacities, must render the loss of his services a serious matter to the community. The following is the address which the chairman of the dinner

(Dr. Ward, the Principal of Owens College) read and presented to Dr. Tatham on behalf of the numerous signatories:—"To J. F. W. Tatham, M.A., M.D., M.R.C.P., Statistical Superintendent of the Registrar-General's Office, Somerset House, London.—We, the undersigned inhabitants of Manchester, Salford, and the neighbourhood, desire to offer you our cordial congratulations on your appointment to the office of Statistical Superintendent of the Registrar-General's Office, Somerset House, London, and to express our hope that you may enjoy the health and strength necessary for the fulfilment of the duties of this honourable and important public post. We desire to take this opportunity of placing on record our sincere regret that your official connexion with the city of Manchester, as its medical officer of health, should now of necessity terminate. We would also express our deep sense of the service you have rendered to this city during the past five years and of those given by you in a corresponding capacity during the preceding fifteen years to the borough of Salford. We believe that the scientific knowledge, prompt insight, and power of lucid and expressive explanation conspicuously displayed by you during your tenure of these offices will prove to have left an enduring mark upon a most important branch of public administration. We feel assured that all who are interested in the welfare of this community join us in cordially acknowledging your arduous and self-sacrificing labours for its welfare."

PERNICIOUS ANÆMIA AND CHANGES IN THE SPINAL CORD.

IN the *Archiv für Psychiatrie* Dr. Nonne of Hamburg contributes a description of two cases of this condition, of which several examples have now been recorded by different German observers. In a recent number of the *Neurologisches Centralblatt* the paper appears in abstract. The first patient was a man aged forty-eight years, who developed a progressive anæmia, which soon assumed the form of the pernicious variety. Two months after his admission to hospital he suffered from severe pains in his lower extremities, and for two days he had clonic contractions in his legs. His motor power became gradually impaired, his knee-jerks were lost, but there was no ataxy, abnormality of the pupils, or sensory impairment. Three months later there was increased ataxy, and the pupil reaction was more sluggish. There was also temporary disturbance of the functions of the bladder and clonic contractions were occasionally present in the lower limbs. Six months later the patellar reflexes were again distinct, but no spastic symptoms were present. The pupil reactions were retained and there was no marked sensory impairment. Death finally took place from phthisis. The second case was that of a man aged fifty-seven years. Without apparent cause he began to suffer from paræsthesiæ and slight pains in the lower extremities, with ataxy. Later he had girdle pain, gastric disturbances, and paræsthesiæ in the upper limbs. Nine months after the commencement the condition was as follows. There was distinct ataxy, but the presence of Romberg's symptom was doubtful. The knee-jerk was unusually feeble, and there was impairment of sensibility on the extremities. The pupils reacted normally. Two months later the ataxy was less and the knee-jerks were again active, and there was no distinct sensory disturbance. The anæmia, however, afterwards became more marked, and death took place at the end of another two months. In both cases after the cords were hardened there were evident scattered patches of degeneration in the posterior columns throughout the whole length of the cords. This was most marked in the middle root zones. Secondary degeneration was also present in the columns of Goll, and in the lateral columns there were large and small foci of degeneration. The posterior roots were unaffected. With the microscope it was seen that there was a combination of small and large foci, and the transition from an acute process to secondary increase of the neuroglia was distinct. The capillaries had undergone hyaline degeneration, their lumen in places having quite vanished. The lymph sheaths were dilated and many of them filled with flakes and detritus. It was to be noted that the fibres on the inner border of the posterior horns, the grey substance of the posterior horns, the posterior roots, and Lissauer's zone were unaffected. The etiology of the condition is still obscure. Its course is usually one of months, and by this, as well as by several other features which are detailed at length the condition is distinguished from tabes. Its pathological anatomy also, as will have been seen, is quite distinct, and we have yet to learn the cause of this grave affection of the spinal cord in certain cases of severe and progressive anæmia.

THE TEACHING UNIVERSITY COMMISSION.

WE understand that the report of the Royal Commission on the proposed Teaching University of London has been signed and will shortly be published. It is rumoured that the recommendations will include a reconstitution of the existing University of London; increased powers to the teachers in the London colleges and medical schools; a division of students into metropolitan and provincial, with some alterations in regard to examinations; a combination with the Royal College of Physicians of London and the Royal College of Surgeons of England to give a suitable pass degree to London medical students; and the appointment of a statutory commission with powers to carry out these recommendations.

CORPORAL PUNISHMENT IN SCHOOLS.

A CASE of more than usual interest in its bearing on the much-discussed question of corporal punishment in schools was recently investigated by a coroner's court held at Garswood, near St. Helens. It was that of a boy who died of blood-poisoning attributed to chastisement inflicted by his schoolmistress a week before. Briefly, the facts were the following. There was inflammation of the right forefinger, which lasted a fortnight in spite of poultices, &c., and cost the boy his nail; then came the punishment, which was said to have consisted in a caning over the knee, the sore finger being injured at the same time, with subsequent illness and death. At the post-mortem examination there were found disease of the finger, as above stated, the mark of a small wound on the right heel, signs of injury below the left knee, with redness and points of localised suppuration, suppurating phlebitis in the left thigh, swelling and suppuration in the left groin, and purulent pericarditis. The medical evidence allowed of no doubt as to the existence of septicæmia, but was divided as to its source, one witness maintaining an idiopathic origin at the seat of supposed injury in the left leg, the other maintaining the necessity of an external origin at some wound and regarding the signs in the leg as secondary. We will not discuss at length the comparative merits of these different views. It is sufficiently evident that a schoolboy, probably not too well nourished, and in whose system the germs of contagion from a festering whitlow had been allowed to breed for a fortnight, could hardly be regarded as of healthy physique; it is probable, therefore, that the blows inflicted upon him, if directly accountable for his last illness, owed their influence entirely to his constitutional predisposition. The issue of the case, even without this unintended stimulus, was inevitable. Among other deductions from the facts above related, the coroner and his jury drew the inference that corporal punishment in schools was in danger of being overdone, and in particular that it should not be administered in any case by an assistant-teacher. We do not dispute the general truth of these conclusions; at the same time, we must not overlook the fact that had the chastisement been inflicted by a headmaster, or anyone

else, and with the utmost regularity, the result would in all likelihood have been the same. A still truer inference, it appears to us, would be that there are some children in schools in whose case physical punishment may, at all events for the time being, have to be dispensed with altogether. The question of health, or the contrary, must ever be present in the teacher's mind. As regards chastisement by assistants, the instance related, as we have seen, proves little or nothing, but there can be no doubt that, if it is to be entrusted to subordinates at all, this at least is necessary—that an interval sufficient to allow of the subsidence of angry feeling, and of some needful reflection as to physical conditions, should intervene between the offence and its expiation. The case is further instructive as a warning that the cane must not be used over prominent bony structures. These, as is well known, readily become inflamed after an injury. In the light of suggestion, such as this case affords, it appears to be very desirable that some knowledge of the pathology of physical punishment should form part of a teacher's qualification to use the rod.

THE PREVALENCE OF INFLUENZA.

ALTHOUGH in some parts of Great Britain influenza is undoubtedly abating, its prevalence and virulence in other parts are somewhat alarming, even when due allowance is made for descriptive exaggeration. In West Cork it is reported that, especially in the union of Skull, a very severe type of the disease prevails, with pneumonia as a frequent complication. It is further stated that the mortality is so great that by night, as well as by day, undertakers are at work constructing coffins for the dead. Let us hope, however, that this statement is hardly meant to be accepted literally. From Lincolnshire, too, the reports are far from encouraging, and the disease is said to be manifesting itself in all parts of the county. From as far north as Westray, one of the Orkney Islands, reports reach us of the ravages of influenza; and deaths still continue to be recorded from South Wales. On board H.M.S. *Edgar*, which is lying off Malta, no fewer than eleven of the officers and 100 of the crew are suffering from the disease; from Turin and Milan many cases also are reported.

THE INTERNATIONAL MEDICAL CONGRESS.

THE *Gazzetta Ufficiale* of the kingdom of Italy contains the following report addressed to the King by the Minister of the Treasury on the advance of 30,000 lire (£1200) from the fund reserved for unforeseen expenses:—"Sire, to receive honourably the Eleventh International Medical Congress, which meets in Rome at the end of March next, your Majesty's Government, having already taken a formal pledge in this regard, cannot refrain from contributing to the not inconsiderable expenses which such gatherings of the scientific world render necessary for the preparation of sites, receptions, and such like, which, from experience acquired on other occasions, could never be covered by the proceeds of the entrance tickets purchased by the members. On the other hand, the special importance which this gathering has for our country constrains us to follow the example of other States in making provision that in the capital of the kingdom the illustrious votaries of the healing art in all its branches should find agreeable and cordial hospitality." On the resumption of parliamentary business there will be presented a special Bill for an adequate contribution to the aforesaid expenses on the part of the State. In the meantime, however, being under the necessity of beginning the preparatory labours of the Congress without delay, the Council of Ministers, recognising the urgency of the demands in question, has resolved to avail itself of the powers vested in it by Article 38 of the "Law on General Accounts of State" to advance from the fund reserved for unforeseen expenses the sum of 30,000 lire in order to place the Central Committee of the Congress in a position to meet first requirements, which sum shall be inscribed under a new heading of the budget of the Minister of the Interior with the denomination, "State contributions for the expenses of the Eleventh International Medical Congress to be held in Rome on March 29th, 1894." This State subsidy, coming as a first instalment in aid of the private contributions of the heads of the profession in Rome and throughout the peninsula, to say nothing of the never-failing largess on all such occasions from King Humbert's privy purse, attests the solicitude of Italy to make the next International Congress of Medicine and Surgery inferior to none of its predecessors as far as the comfort, convenience, and general satisfaction of its participants are concerned.

THE SNAPDRAGON ACCIDENT AT GUILDFORD.

WE are very happy to see that the coroner's jury at the inquiry into the catastrophe which occurred at the Surrey County Hospital on Christmas night have returned a verdict entirely in accordance with our expressed opinion at the time. The sad story is too recent to need recalling. The jury found that the deceased met his death from accident, and they made no attempt to fasten the blame upon any individual, but considered it—to quote our own words at the time—"the direct consequence of the playing of a dangerous game by a large party," and strongly condemned the practice of playing snapdragon in a hospital.

THE PROTECTIVE INFLUENCE OF VACCINATION.

THE statement of facts set forth in the report of the medical superintendent of the hospital ships is worthy of being put on record. It is strongly corroborative of previously recorded experience as to the protective influence of vaccination in safeguarding nurses and members of the staff of small-pox hospitals against an attack, and more especially a fatal attack, of that disease. Of 1201 persons employed on the staff of the hospital ships during the years 1884 to 1892, only six, or ½ per cent., contracted small-pox, and all of those attacked recovered.

THE SANITARY CONDITION OF CHRIST'S HOSPITAL

THE governors of Christ's Hospital School find themselves placed somewhat on the horns of a dilemma with regard to the sanitary condition of the school. It will be remembered that in the autumn of last year an outbreak of scarlet fever occurred amongst the scholars, and that after careful consideration of all the facts of the case the boys unaffected by the disease were dismissed to their homes. Dr. Sedgwick Saunders, medical officer of health of the City of London, then undertook a searching examination of the drainage system, and the condition of affairs thus brought to light was found to be so bad that the Commissioners of Sewers were recommended to order a reconstruction of the system. This recommendation was agreed to and the usual notice served. Now comes the practical difficulty. The governors state—by means of a deputation which waited upon the Commissioners on Jan. 23rd—that to carry out a scheme of reconstruction will involve the expenditure of from £15,000 to £20,000, and they point out that in face of the removal of the school to another site at an early date such an expenditure would be unjustifiable. The governors add that they have endeavoured, but without success, to obtain premises for temporary occupation. Under these circumstances the petitioners ask that the notice served by the Commissioners of Sewers may be withdrawn, and a modified scheme of alteration allowed. The petition has been referred to the sanitary committee for immediate

consideration. We fully recognise the difficulty of the position from the point of view of the governors and also from that of the parents and guardians of the boys; but it is nevertheless impossible not also to recognise the responsibilities which rest alike on the shoulders of the governors and the sanitary committee, now that the state of the drainage has been revealed. The question which will have to be decided is whether, by the careful aerial disconnexion of all the house drains from the main ones and the reconstruction of defective closets &c., the sanitary committee and the governors are prepared to accept the responsibility of allowing the boys to return for the short period during which it is proposed the old site shall be occupied. Failing this, it appears to us that some temporary accommodation will again have to be sought for.

THE DIFFUSION OF SMALL-POX.

AMONGST the places where small-pox was most prevalent during the week ending the 20th inst. there were new attacks as under:—Birmingham 48, Bristol 23, Walsall 21, West Ham 15, Oldham 10, Nottingham 9, Wakefield 8, Walthamstow 6, and Bradford 5. Attacks also occurred at Swindon New Town, Handsworth, Worcester, Aston Manor, Coventry, Manchester, Halifax, Hull, Middlesbrough, South Shields, Gateshead, Swansea, Aberavon, Brierley Hill, Barton Regis, Caerphilly, Cannock, Stroud, and Worksop. There is some diminution of the epidemic in Birmingham, but during part of the week under review there were over 170 cases in hospital there; at Brierley Hill the hospital was said to be getting quite full; and at Barton Regis, where 10 workhouse inmates have already been infected, strong objection is being taken to the proximity of the hospital to the workhouse site. One guardian suggested as a remedy for aerial conveyance of the infection that the hospital windows should be covered with wire gauze, but the matter was wisely referred to the medical officer of health for his judgment. In London there is a distinct diminution in the number of fresh attacks; they were only 6 in number, and the number of small-pox patients under isolation by the Metropolitan Asylums Board is now only about 70. No fresh attack occurred in Leicester last week.

CARBOLIC ACID.

MOVED by a shrewd and practical suspicion, Mr. Macdona some time ago obtained from the Government a promise to furnish a statement of the number of deaths resulting, during the five years ending 1891, from the misuse of carbolic acid. This pledge is redeemed in a return issued on the 12th inst. by the Local Government Board. The figures contained in this report are somewhat startling. We learn from it that in 1887 a fatal result was recorded in 52 cases, 27 being accidental and 25 suicidal. The next year the total rose to 92, chiefly from an increase of suicide, then fell for two years to 63 and 69 respectively, rose again in 1890 to 94, and in 1891 attained the high figure of 375, the suicides in each year markedly predominating. It is further noticeable that the tendency to self-destruction has been manifestly much greater among women than men. In only two instances was this drug employed for a homicidal purpose. Such facts as these afford material for very serious reflection. It would be something like a public loss if a disinfectant so effectual and so readily obtainable as carbolic acid were because of its abuse to be practically condemned as an article of sale except under a prohibitory licence. We must also allow that, even were it excluded from the market, there would still be difficulty in discovering a known antiseptic equally convenient and less liable to misapplication. The only rational, or at all probable, means of escape from the dilemma would therefore seem to be found in a stricter regulation of its sale, which would insist upon its treatment as a poison within the meaning of the Act. The officially required label might also the better act as a deterrent upon suicide if it noted the corrosive and irritant character of the drug. This example is only one of many which go to prove the great inadequacy of the Sale of Poisons Act as a preventive measure. We have repeatedly urged the inclusion within it of substances hardly, if at all, less potent than the few of which it takes cognisance, and carbolic acid, among others, would gain rather than lose in utility if so treated. In this connexion it will be noted that our Newcastle correspondent alludes this week to two simultaneous suicides in that city, in which carbolic acid was the agent.

DECLINING NUMBER OF NOTIFICATIONS OF INFECTIOUS DISEASES.

IT is gratifying to notice a general decline in the number of the notifications of infectious diseases, according to the last report of the Metropolitan Asylums Board. There were in the fortnight 2082 notifications of infectious disease, as against 2357 in the previous fortnight; of small-pox cases, 33, as against 46; of scarlet fever, 931, as against 1089; of diphtheria, 484, compared with 548; of enteric fever, 140 cases, as against 173; and 494 other cases, as against 501. The managers had been able to meet all applications for admission. Nevertheless, Mr. Scovell obtained "urgency" for a motion to erect a hospital at Shooter's Hill to accommodate 500 patients at an estimated cost of £220,000; but this costly order was postponed for a fortnight. Opportunity should be taken of any decrease in the prevalence of infectious diseases to revise the whole question of the public accommodation for them.

THE EFFECT OF THE EXANTHEMATA UPON THE TEETH.

THE journal of the British Dental Association refers to an interesting communication by Dr. Patrick, in which he recounts a case of scarlet fever attacking a patient during the fifth month of gestation which apparently produced a honeycombed condition in the temporary teeth. The child, born at the proper time, cut its teeth exceptionally early, the enamel generally being discoloured, pitted and granular and quite absent at the incision margin, the teeth barely extending beyond the gums; the permanent teeth appeared in due course, being quite free from pitting of any sort. In a second child, in whose case measles was contracted soon after birth, the temporary teeth were all free from defect; the permanent teeth, however, appeared unusually early and were discoloured, pitted and granular. These cases, therefore, would seem to point to the fact that the exanthemata not only lead to defects in the structure of the teeth, but may also accelerate eruption.

THE LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

THE following are the arrangements for the lectures at the Royal College of Surgeons during the present year. The lectures are divided into two courses, both of which are to be delivered in the theatre of the College at five o'clock. In the first course Dr. Ernest H. Starling (Arris and Gale Lecturer) will give three lectures, on Feb. 5th, 7th, and 9th (Monday, Wednesday, and Friday), on the Physiology of Lymph Formation. Professor C. B. Plowright will lecture on the Fungus Kingdom on Feb. 12th, 14th, and 16th (Monday, Wednesday, and Friday); and Professor E. Treacher Collins will give three lectures on Feb. 19th, 21st, and 23rd (Monday, Wednesday, and Friday). Professor Charles Stewart will lecture on the Physiological Series of Comparative Anatomy in the museum of the College on Feb. 26th and 28th, and on March 2nd, 5th, 7th, 9th, 12th, 14th, and 16th. In the second course of lectures, during May and

June, the Morton Lecture on Cancer and Cancerous Diseases will be given by Mr. S. G. Shattock on May 3rd (Thursday). The Erasmus Wilson lecturer, Mr. J. H. Targett, will lecture on Monday, Wednesday, and Friday, May 28th and 30th and June 1st, on Some Interesting Additions to the Pathological Department of the Museum. Professor Raymond Johnson will lecture on Monday, Wednesday, and Friday, June 4th, 6th, and 8th, on Tumours of the Breast. Professor William Thorburn will lecture on the Surgery of the Spinal Cord and its Appendages on Monday, Wednesday, and Friday, June 11th, 13th, and 15th. Professor T. Pickering Pick will give three lectures on Diseases of the Ends of the Long Bones in Children on Monday, Wednesday, and Friday, June 18th, 20th, and 22nd.

THE OUTBREAK OF TYPHOID FEVER ON H.M.S. "CANADA."

WE await with considerable anxiety further reports with reference to this outbreak. It appears that before H.M.S. *Canada* left Barbadoes eleven of her crew, who were affected with typhoid fever, were sent to the hospital there for treatment, but a recent report states that on the arrival of the vessel at Bermuda she was carefully fumigated and her ship's company transferred to the *Shah* and the *Scorpion*. A later telegram from Halifax, however, tells us that, according to a despatch which was received there on Jan. 20th, thirty-nine cases have occurred on board the *Canada* at Bermuda. There appears lately to have been a considerable amount of illness amongst our ships abroad, as, in addition to the above, we hear of serious outbreaks of scarlet fever on board the *Howe* and, as noted elsewhere, of influenza on the *Edgar*.

THE PERILS OF PRACTICE.

A FEW days ago there died at Lancaster Mr. Robert Clark, a victim indirectly to professional duty. Our readers will remember that the reported cause of death was blood-poisoning through a small blister on the nose which the deceased must have touched after he had been engaged in dressing some sores on the person of a patient. Some defect of constitutional stamina, it may be, increased in this case the ordinary effect of the conveyed poison. The statement of these facts is in itself almost as instructive as it is brief and simple. We would, nevertheless, add something to it, and especially a reminder that no degree of familiarity with disease and death should blind the practitioner to the risk which he daily runs of absorbing that which, as it is injurious to the body of his patient, is often doubly dangerous to his relatively unaccustomed tissues, exhausted, as these may well be, by the constant strain of a laborious calling. It is, indeed, much to the credit of practitioners that, like him whose untimely end we have recorded, they are commonly far more earnest in their duty of relief and healing than in that of personal concern—nay, are at times nobly wilful in their self-neglect. We do not entirely blame them. The balance of rival claims must not in such cases be too nicely weighed, but we would again impress the manifest obligation—binding, we consider—in every such case, without exception, as that above mentioned, to secure by immediate, thorough, and aseptic personal cleanliness the only guarantee of safety against contagion. It is not enough to merely wash the hands. Thorough washing, thorough scrubbing with brush, soap, and water, and finally antiseptic ablution, constitute the required minimum of precaution.

RECURRENT PARALYSIS OF THE THIRD NERVE.

THE case of a woman twenty-six years of age, in whom this condition was present, is described by Dr. Jack in a recent number of the *Boston Medical and Surgical Journal*. She had enjoyed good health and there was nothing which could be construed into a history of syphilis. Her mother had suffered from headaches. The history of her condition when she came under observation—a condition of weakness of all branches of the third nerve—was as follows. Towards the end of January the patient was attacked by sudden and severe pain in the left frontal region, the temple, cheek, and side of the nose. The pain was of a dull character and was accompanied by loss of appetite and vomiting, which lasted for some days. In the course of the first day the eyelid began to drop and there was soon complete ptosis. After the lapse of two weeks there was ability to raise the lid sufficiently to uncover the pupil. The patient then had diplopia, which still persisted when the report was written. Examination at this time revealed marked limitation of upward movement, and apparently some defect in inward movement, while downward and outward movements were normal. These conditions persisted almost unaltered six months later. The history which the patient gave revealed the fact that attacks similar to this had occurred at intervals during the past ten years—that is, since the age of sixteen was attained. The intervals varied, so that in some years there were only two or three and in others there were five or six. The last interval of nine months was the longest that had ever occurred. During the first few years there was no paralysis between the attacks, but in the intervals between the recent attacks there had never been complete recovery from the paralytic condition. The nature of these cases of recurrent paralysis of the third nerve still remains doubtful. According to some they are associated with true migraine, while others doubt whether the headache which ushers in the attacks is really of this character. The results of post-mortem examination in the few cases examined are not conclusive, but seem to indicate a nerve condition and not a nuclear one as the underlying cause.

TWO departmental committees have been appointed by the Secretary of State for the Home Department to consider the form in which the mining statistics of the United Kingdom and those relating to factories and workshops are now issued by the Home Office, and to put before him such recommendations for their improvement as may seem to them expedient. The first committee will consist of Dr. Hunter, M.P.; Dr. Le Neve Foster and Mr. W. B. Scott, Inspectors of Mines; and Mr. J. B. Jordan, of the Home Office. The following are the names of the gentlemen who will form the second committee: Mr. E. Gould, Superintending Inspector of Factories; Dr. Whitelegge; Mr. Jasper Redgrave, Inspector of Factories (who will act as secretary); and Mr. J. G. Legge, of the Home Office.

WE understand that the following arrangements for the sittings of the Opium Commission have been decided upon. At Agra meetings will be held on Jan. 24th, 25th, and 26th; at Jaipur on the following day; at Ajmere on the three last days of January and Feb. 1st; Section A will assemble at Indore on Feb. 2nd, 3rd, 5th, 6th, and 7th; and Section B at Ahmedabad on the 8th. An abstract of the evidence proposed to be given by the witnesses will have to be furnished to the Commissioners at least one day before the sitting at which the respective witnesses are to be called.

AT Geneva on the 24th inst. the Faculty of Medicine solemnised with brilliant ceremony the fiftieth anniversary of the professorial career of Dr. Maurice Schiff, who holds the chair of Physiology in that school. Professor Schiff, it will be remembered, was lecturer on the same subject in the Istituto dei Studi Superiori in Florence, but had to leave about a quarter of a century ago under pressure of the anti-vivisection agitation.

THE London County Council Water Bill, which has for its object the granting of powers to the London County Council whereby they may have the power to purchase all water rights they may think necessary for the adequate supply of London, came before Mr. Champion, one of the examiners of Private Bills for the Investigation of Standing Order Proofs, on Thursday, Jan. 18th.

IN the case of the two actions brought by Mr. and Mrs. Thomson against Dr. Robert Bell of Lynedoch-street, Glasgow, we are informed by Dr. Bell that the matter is still *sub judice*, as he has appealed against the decision of the judge.

SIR H. ROSCOE, M.P., has been appointed to the vacancy in the Senate of the University of London caused by the death of Sir William Smith, LL.D., D.C.L., the author of the celebrated dictionary.

THE appointment of Dr. Murdoch Cameron to the office of Regius Professor of Midwifery in the University of Glasgow is gazetted.

THE name of Dr. Rowland Hill Coombs has been placed on the Commission of the Peace for the borough of Bedford.

THE ISLAND OF MADEIRA.

(Continued from page 115.)

"AT Madeira, within the limits of a comparatively small island, nature presents herself to the delighted traveller under aspects of inconceivable variety and beauty." Thus wrote Lord Brassey when he visited it in the year 1877. This remark is true alike as regards the scenery, vegetation, and climate of this "ocean gem." As has been indicated in the former two articles on this subject,[1] Madeira presents a typical example of a warm, moist, marine, insular climate, and the figures which we have been able to submit to our readers indicate that it possesses one of the most equable climates in the world. The proportion of pleasantly warm, not over-hot, "June days" is very high, and even delicate invalids can enjoy open-air exercise with great regularity. The winds may be regarded as the beginning of the trades, mild, pure, and gentle. The British Consul at Madeira (Mr. Keene) informs us that, although a strong "south-easter" occasionally blows, yet during a residence of five years no instance has occurred in which a mail boat has been unable to land passengers through the violence of the gales.

We have received within the last week the following testimony of nature's bounty to Madeira from one who has travelled and sojourned in many lands. "After a residence of six weeks I am more than ever charmed with the climate of Madeira. There is nothing equal to it in Italy for equableness and mildness. The thermometer at the hotel never has marked over 67° or lower than 53° (the extremes); the mean I find to be 64° and 58°, which you will allow to be about perfect for winter. As for rain, the mountains behind us get most of it, and so far, I have never noticed damp salt or the slightest signs of mildew on leather. Sunlight we have in plenty, specially in the mornings—the most favourable time for it—and our afternoons are slightly clouded by vapours from the north; the atmosphere is kept well in motion by winds, which, I take it, is the principal objection to the place for consumptives, but at the hotels in the town this is not so much felt as here. There is, however, no dust at all, and this is one of the greatest of all possible comforts. Dust is awful at most towns on the Riviera, Naples, Cairo, &c. Under these circumstances I may safely say that Funchal is one of the finest winter climates in the Northern Hemisphere, free from cutting winds, sunny, mild, and of an even temperature. In addition to these advantages are the natural beauties of the island, lovely gardens full of flowers; which help to brighten the life of invalids. As to food, I find it better than in most parts of Italy, more particularly the fruit and vegetables. You see I have nothing but good to say of the climate. As to the town, there is much room for improvement in the matter of water-supply, drainage &c., but that is outside the subject and does not affect us who live two kilometres from the centre. The hotel is quite full since the Empress of Austria arrived. Her *suite* fill the bungalow below us. The Empress is the most active of women, rising at five in the morning, and is on foot walking all over the island all day long, yet it is said that she suffers from sciatica. Her quieter moments are taken up with studies of Greek lessons given by a professor who travels with her. The Empress finds the climate is doing her great good, and, judging by the amount of exercise she takes, the air cannot be relaxing."

The diversity of the scenery is as wonderful as the diversity of its vegetation. The delightful country districts of the island are very little known, and it has been suggested that the islanders in this respect do not lay themselves out sufficiently to entertain their visitors by organising cheap and pleasant excursions inland. This, if it were done, would afford one of the most excellent means of attraction not only to *poitrinaires* and other *malades*, but to the hearty man of business on the alert for some recreative spot unhallowed as yet by the foot of the tourist. More cohesion amongst the English residents, who, after all, are the heart and soul of the community, would bring about great changes in this direction. But even those scenes which are familiar to all who have visited the island impress us with their beauty. There is the Quinta Vigia and its gardens, a perfect replica of a Miltonian paradise. The Quinta Magnolia, the residence of Dr. Watney, is a pretty mansion embowered in roses and encircled by orange groves pleasant with the songs of birds, the remembrance of which creates a longing for one more look at the clear blue sky and for a breath of the fresh reviving air and scented breezes wafted pure from the sea. Nature has, indeed, been bountiful in Madeira, and it remains to be seen whether her bounty has been taken advantage of appropriately, or whether, as often happens, "good nature" has been abused.

The garden flowers possess quite a spring character in December. The sweet-smelling jonquils, tulips, and the crinums are in bloom; the apple trees are in blossom, preparing for their spring crop of apples, which in turn give place to the flower buds for the autumn crop; camelias and large aloes blossom everywhere; daisies do not paint the sward as they do in England, but bloom on "daisy trees"; heaths, tree-like in the immensity of their growth, compared with which the Scottish heather is very insignificant, decorate the upland valleys. Amid scenes like these the mere sense of existence becomes in itself a happiness, and luxuriating in such a climate in full health gives some insight into what animals probably feel in pleasant pastures on brilliant days. There is no excuse for any intelligent-minded person with a fair share of health and a wish for occupation refusing to engage in it and to enter upon it with some purpose. Nature surrounds the visitor with abundant opportunities for health and work and purpose.

A glance at the illustration on the opposite page will give some notion of the reasons which make Madeira "dust-free." The proverbial peck of March dust, if it were a commodity, would here be worth more than the usual guinea. It would indeed possess a monopoly value, if value depended only upon scarcity. The narrow roads throughout the town and extending up the hill sides are paved with pebbles of basalt gathered from the sea beach. Smoothed by the agency of the waves, they are very suitable for the traffic of the bullock sledges which glide so silently over them. However much they contribute to the cleanliness of the roads pedestrians find them rather trying. The absence of dust accounts for the whiteness of the floors and walls of the bedrooms and for the almost aggressive spotlessness of the linen. Linen brought from London might well, so to speak, hide its face ashamed in presence of the Madeira sheets. The floors and walls were absolutely dustless, in proof of which the test of rubbing the newly washed hands vigorously along the floor of the bedroom which we occupied was applied; they were no dirtier after the experiment. A clean sheet of writing paper rubbed along the floor was not soiled. The crevices and cracks on the floor were explored by the point of a knife. A little fluff and a small hairpin were obtained. The only spiders noted in the island were the beautiful "zebra" spiders, which Dr. Grabham rears as pets in his front garden, but these were in no way connected with

[1] THE LANCET, Jan. 6th and 13th.

dusty cobwebs. "Down with the dust" is a very appropriate motto for the sanitary authorities to adopt and may even be adopted with advantage by this community in many of their commercial transactions. Regarding the lower forms of animal life usually met with in Madeira, pulex irritans is rare, and mosquitoes do not, as in some other desirable health resorts, disturb the first hours of repose by their ferocious inroads.

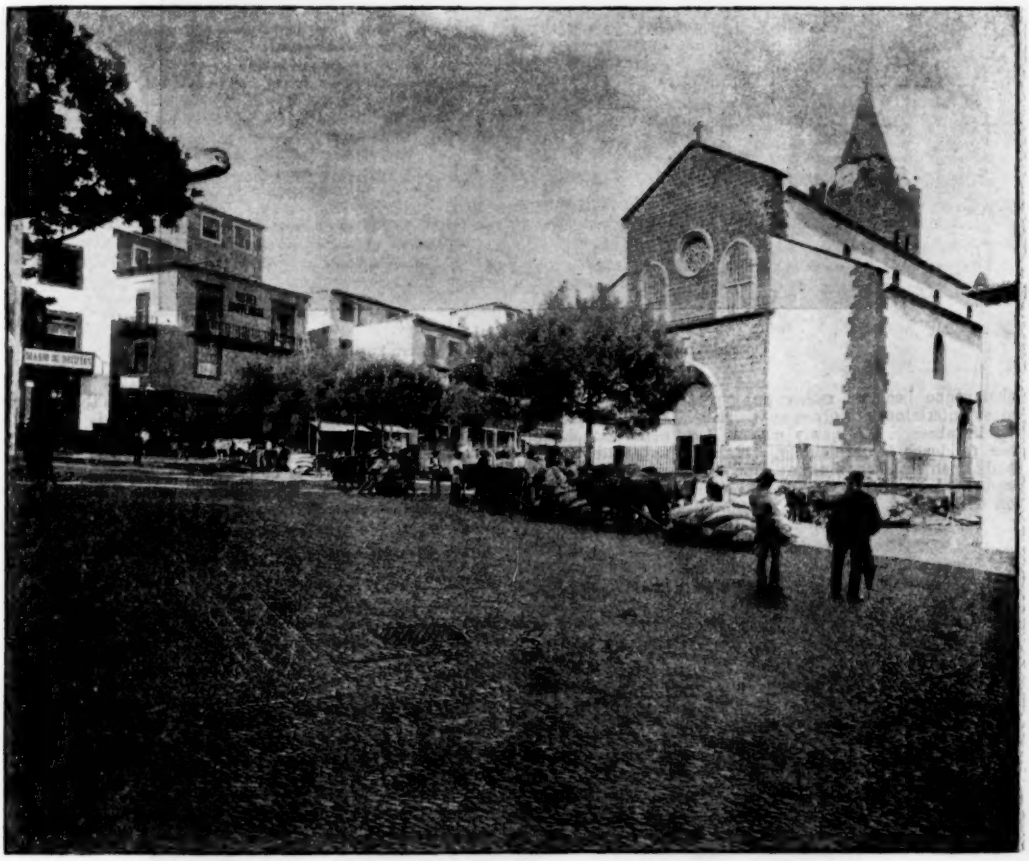
It is a matter of some surprise that the journey to Madeira appears to be the most expensive one out of England. A change in this respect would go a long way to render it more accessible. The charges which will fall most heavily on the visitor to this island are those incurred in moving from place to place. This is, to a great extent, due to the narrow and steep condition of the roads. Visitors are frequently overcharged by the drivers whom they engage, and the autho-

proprietors, who sought to meet the convenience of visitors desirous of seeing the remoter districts of the island.

Unlike the hotels in France, Italy, or Egypt, in which the "extras" mount up to considerable sums, the tariff at the hotels in Madeira includes everything except the laundry and wine bills. The terms vary from £12 upwards for a single bedroom for the period of four weeks. As a specimen of the food which is provided at the hotels the following is a sample taken at random from the menu-card placed on the lunch-table at one of the hotels :—

Lobster mayonnaise.	Cold beef.
Roast mutton.	Cold chicken.
Mince and poached eggs.	Rice pudding.
Stewed tongue.	Vegetables.

Fruit: consisting of two or three kinds of bananas, oranges, custard apples, mangoes, apples, tangerines, and walnuts.



The Cathedral Square. Mode of paving the Streets.

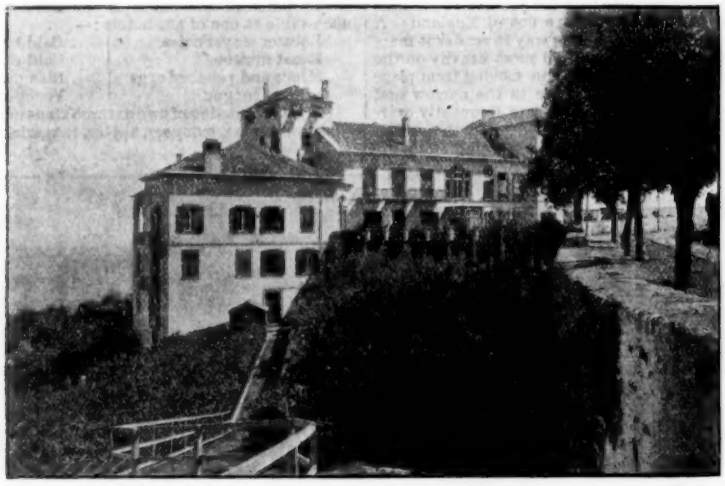
rities, for all they do to prevent such imposition, seem to rejoice in the fact.

Perhaps it would be of some importance to ask whether the accommodation provided in the island is of that character which, if exposed to the light of severe scientific criticism, would attract intelligent visitors (invalid or not), seeking to benefit from its grateful climate, to establish themselves there for a season. There are many hotels where the visitor can reside with great comfort and at very reasonable cost. We observed that in some of the hotels, as has so often been recommended in THE LANCET, there is hung in the entrance-hall a plan of the drainage, which is very reassuring to the visitors. There is also a hotel at Santa Anna, a town on the northern coast. Notwithstanding the fact that from this place the best scenery in the island can be reached, up to the present it has only been a source of expense to the

There are one or two things which it may interest the intending visitor to know. The island is not without its sad disadvantages, many of which are entirely due to the existence of laws founded on ignorance, greed, or idle dread, and which are by no means creditable to the good sense and progress in knowledge of the island. It should, however, be borne in mind that Madeira plays in a great measure the *rôle* which the foreign colonies did to ancient Rome. It is a treasure-mine for the "poor, miserable Portuguese Government," and whenever the exchequer runs empty it is replenished by imposing fresh taxes on the population and produce of Madeira.

A few examples will best explain the nature of the imposition: bacon is 2*s.* 8*d.* a pound, the tax on tea is 2*s.* a pound, the tax on patent medicine is 3*s.* a pound (of this complaint cannot be made); wines in cask are charged 12*s.* a decalitre

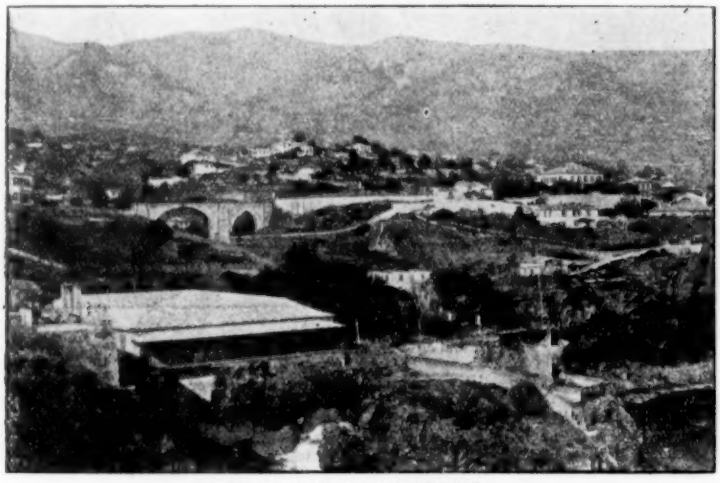
plus one-seventh of the value, and 2*s.* 6*d.* a decalitre for municipal costs; the impost duty on a dozen bottles of champagne, say, at 80*s.*, would be (1) 2*s* for each bottle = 24*s*, (2) one-seventh of the value = say, 12*s*; municipal costs, 4*s*; total duty, 40*s.*, bringing the cost of the wine up from £4 to £6 a dozen. From these figures it will be seen that champagne becomes rather an expensive luxury, and in most entertainments given on the island it is conspicuous by its absence. A newly married lady came to take up her residence in Madeira and brought a small box of body linen with her valued at £11; the duty on the contents amounted to £13. Carpets are rather scarce, the duty on them being 1*s.* 3*d.* per pound. This gives some idea of what is implied by duties imposed avowedly for the purpose of protecting native industries. The disastrous results are set forth by Mr. Keene in his report to the Foreign Office for 1892: "The excessively high duties are accountable for this great falling off of imports and have caused the importation of dry goods from England to be almost entirely suspended. Foreign competition with goods manufactured in Portugal is impossible, and the consequence is the total absence in the shops of the better class of goods. These duties do not benefit the shopkeepers. On the contrary, they suffer thereby." It is difficult to discover in what way these protective duties benefit anyone.



The New Road. New Hotel: Example of Modern English Style.

Perhaps the most iniquitous tax ever heard of is the unique charge of 15*s.*—recently increased to £1—which is imposed upon those who are desirous of leaving the island.

In considering the suitability of any locality for patients suffering from disease it is of the utmost importance not to raise expectation to too high a pitch by means of exaggerated statements and descriptions; these will surely breed disappointment and will do the health resort in the long run much damage.

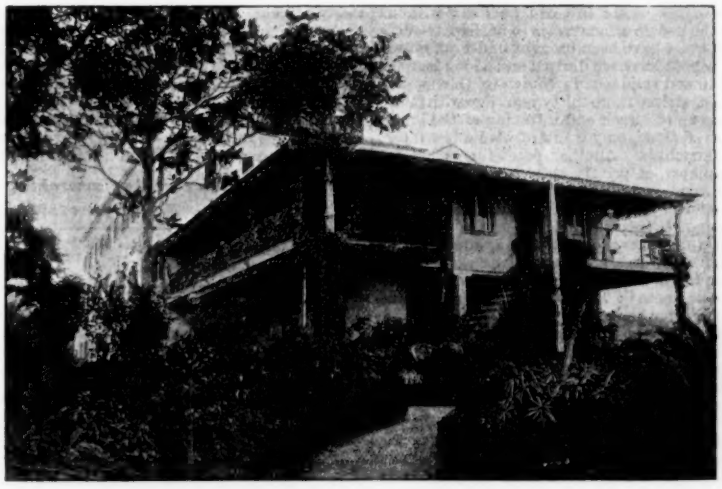


Passo da Corda, east end of Funchal.

It is the experience of all travellers that change of climate is followed by a certain amount of change or disturbance of the physical health. The whole benefit of a climatic course consists in making open-air life possible and thereby removing

one of the exciting causes of a particular mischief and so far leaving nature a free field for the exercise of her "healing influence." The exercise of common care has enabled many a feeble one to go through life in the climate of Madeira with as much comfort and happiness as is given to the robust in this variable climate of ours.

who have returned from tropical or subtropical climates after military or naval service in those countries. It manifests itself in physical and nervous debility and increased hæmolysis. After a return to England from those climates they complain of insomnia, great depression of spirits, and an irritability of the nervous system.



The Bella Vista Hotel: Portuguese Style.

People suffering from some forms of bronchitis and laryngitis derive much benefit from a residence there; the climate is also suitable in irritable nervous affections and in scrofula and anæmia. In convalescents from exhausting or acute diseases like scarlet fever it would be difficult to find any climate or health resort which possesses more favourable conditions for speedy recuperation. It is very easy to live in

In agreement with many practitioners who have devoted much time to making observations on this subject we can say that in cases of early phthisis with hæmoptysis—which require a slight amount of dampness, no dust, no irritating winds, and where the increased action of the skin, facilitated by the warmth and equability, tends to lessen the blood-pressure—the climate of Madeira is incomparable.

The Bay of Funchal, looking west..

circumstances where the visitor has nothing to do but rest and gain health. Patients suffering from the effects of malaria and neurasthenic conditions that have arisen from residence in warm climates and are connected with tropical anæmia will find much benefit in Madeira. This form of anæmia is described as occasionally occurring in young men

Regarding the question of its suitability in cases of phthisis generally there has been much discussion. Jaccoud has expressed himself very favourably in regard to this point, which is one upon which it is difficult to obtain information. On the other hand, some authorities allege that the island has very little tonic influence, and that therefore, as a rule, it is

contra-indicated in cases of advancing or incipient phthisis. Probably the truth lies between these two views. All will allow that in some irritable forms of the disease and in the *eretische* constitution it is worthy of a trial. The results of personal investigation on this point may be set forth thus. In early cases of phthisis, where the first acuteness of the febrile symptoms has subsided, and where the infiltration is not general, open-air life is everything. Madeira is the place for these cases, where life can be lived without exertion and where the people around seem to anticipate one's necessities. Several cases have been brought under our observation where great benefit has been derived and a long lease of life attained by continued residence in Madeira. One gentleman, an old army man, arrived there thirty years ago with much dulness and breaking up of tissue and softening of the lung; he has lived there ever since, only troubled with a few intercurrent attacks of bronchitis. Another point for consideration is that the number of private residences prevent the massing together of invalids, by which disease might be communicated. A complete system of isolation exists, and the general opinion among those of experience in the island is that cases of phthisis do best when situated at an elevation of about 400 ft. above the sea, and that is the elevation at which most of the quintas are built. The other side of the picture may be thus presented: The great amount of vegetation which exists is somewhat against its suitability as an El Dorado for sufferers from phthisis. The moisture also militates against it in some cases. Cases of atonic phthisis, attended with some fever, eroded cavities, and patchy softening, do not do well in Madeira. Expectoration increases under the moisture, and the case goes on until finally it becomes tuberculous. The island is full of germ-fostering conditions, and it is here again that the importance of the means for isolation at different heights and sheltered from the winds comes into greatest prominence. Chronic cases of phthisis with inflammatory tendencies do not get well at Madeira, although many persons suffering from advanced disease pass their last days there very comfortably.

Patients suffering from chronic rheumatism have great difficulty in finding localities in which they can reside with any degree of comfort. At one time they try the dry air of the desert, at another the coast of Spain, or it may be the dry air of the Engadine. It is, therefore, not to be wondered at if Madeira has also been sought as a refuge by some of those sufferers. Several cases of this kind have come under our observation and, although the climate is not a specific for that disease, it apparently has a palliating effect, and a great many rheumatic invalids pass the winter at Madeira and enjoy the open air. The eastern portion (page 228) of the southern shore being covered with more abundant vegetation has led some persons to express a belief that the higher and less wooded western side of Funchal (page 229) is preferable for this malady. The two engravings give some idea of the difference in aspect of these parts of the island. The late Sir Morell Mackenzie has stated that, as a rule, rheumatic patients do well at Madeira at about 300 ft. above the sea.[2]

Probably the most important group of diseases for which the island is especially noteworthy are certain forms of kidney disease. This fact does not appear to be so widely known as it ought to be. For chronic albuminuria the atmosphere and surroundings are specially suited. The aerial conditions tend to keep the skin in physiological exercise and thus to relieve blood-pressure. Visitors suffering from chronic forms of neuralgia and other acute nervous disorders are frequently met with in Madeira. Cases of neuritis seem to do well there. This may possibly be due to the absence of chilling winds, as well as to the fact that the state of the atmosphere tends to prevent any suppression of or interference with cutaneous action. The maladies for which Madeira is contra-indicated are some forms of catarrh and intestinal complaints.

It is often the case that invalids in foreign lands are prone to try experiments upon themselves to their own detriment. In Madeira it often happens that fruit is partaken of too freely, and as the sun shines brightly warm coverings are thrown off and persons expose themselves to chill, frequently with regrettable effects. The result is that on their return home the physician under whose direction they have visited the island is unfavourably impressed with results which are attributed to the climate and its surroundings, but which in reality are due to the exercise of some imprudence on the part of the patients themselves. All climes and all lands have to undergo this form of experience, and the physician, indeed, can never have any guarantee that such a contingency will not arise.

In Madeira the visitor if ill is looked after and not pushed on one side like a sick bee in a hive, and we heartily endorse Lord Brassey's opinion[3] when he says that "in kindness to the invalids in the winter season the English residents are here unwearying," and he might have added a similar testimony on behalf of the natives.

With regard to the public health of the island, we have not been able to procure many very practical particulars regarding the mortality and the death-rate from infectious or epidemic diseases. On this subject reports are very varied, and the following official statistical account of the mortality of the town of Funchal and its four adjacent parishes—representing nearly 40,000 inhabitants—does not, by reason of its vagueness and arrangement, afford much information on this subject:—

Mortalidade no Concelho e annos abaixo designados.

(Deaths at Funchal from 1887 to 1891.)

Causas da morte. Concelho do Funchal.* (Municipality of Funchal.)	1887.	1888.	1889.	1890.	1891.
Doenças geraes (Ordinary diseases)	220	191	248	461	196
Doenças do systema nervoso e dos sentidos (Diseases of nervous system)	91	129	117	154	151
Doenças do apparelho circulatorio (Diseases of heart and vessels)	50	32	44	42	39
Doenças do apparelho respiratorio (Diseases of chest and throat)	203	252	315	267	167
Doenças do apparelho digestivo (Diseases of digestive organs)	266	224	285	354	268
Doenças do apparelho genito-urinario (Diseases of genito-urinary organs)	14	15	14	5	13
Doenças puerperaes (Diseases of childbirth)	4	16	10	6	3
Doenças da pelle do tecido conexivo (Diseases of the skin)	23	14	35	35	12
Doenças dos orgãos da locomoção (Diseases of organs of motion)	18	8	14	11	2
Recemnascidos—doenças diversas (Infants—different diseases)	85	52	42	39	32
Cachexia senil (Senile cachexia)	22	21	28	22	24
Mortes violentas (Deaths from violence)—					
Accidentaes (Accidents)	7	4	8	6	12
Voluntarias (Suicide)	1	3	1	1	1
Criminosas (Murder)	—	—	—	1	—
Molestias não classificadas (Not classified)	64	44	3	18	15
Total dos obitos (Total)	1068	1015	1164	1362	1002
Mortos de nascença (Stillborn)	14	30	45	38	69
Estranhos ao Concelho—doenças diversas (Strangers)†	46	48	45	58	53

Secretaria da Camara Municipal do Funchal.
aos 9 de Janeiro de 1894.

Secretario da Camara,
(Signed) LUIZ DE BITTENCOURT MIRANDA.

* The population of the "Concelho" of Funchal—that is, Funchal and four adjacent parishes—amounts to between 39,000 and 40,000 inhabitants. The mortality per 1000 is therefore about 27—rather high.

† This includes natives from other parts of Madeira.

The first item in the above table is delightfully vague under the heading of "Doenças geraes," which, being translated, means "ordinary" or "common diseases." What diseases are included under this heading it is very difficult even to surmise, and it is, on the other hand, impossible to say whether it embraces such diseases as small-pox, typhoid fever, and epidemic diarrhœa. The chief items of interest for most people are the figures relating to diseases of the chest and throat, which are somewhat high; and, moreover, it will be seen by reference to the last item in the table that the diseases under that heading have not been imported to the island. The figures registering the deaths of strangers would appear somewhat high if they were limited only to the thousand and odd visitors who come from abroad; but the numbers include also natives who have come to reside at Funchal from other parts of the island. The table, however, is too deficient in detail to be of much use in deducing any accurate information regarding the comparative health of the island.

All sorts of inferences may be drawn from these vague statistics, but they are more likely to prove incorrect than otherwise. We are glad, however, to recognise that the

[2] Nineteenth Century, July, 1889.

[3] Nineteenth Century, vol. i., 1877, p. 787.

authorities have adopted even this very primitive mode of classification, and it would give them but very little trouble and afford the best proof of the natural advantages and efficacy of the island as a health resort if they were to follow the classification of Dr. Farr or that of the Royal College of Physicians. It is evident that the authorities devote some degree of attention to vital statistics, and we would venture to invite their attention to the public health tables which are published monthly in THE LANCET as models upon which to frame their statistical tables. Such headings as "Infants—Different Diseases," "Senile Cachexia" are instances of a classification so indefinite as to render the statistics of little more use than the paper on which they are written.

(To be continued.)

THE CHOLERA OUTBREAK IN TENERIFFE.

By H. ATHILL CRUTTWELL.

(Continued from page 115.)

CONTINUING my description of this outbreak, it is of importance to note in further detail the nature and effects of the epidemic. At Teneriffe I found the place quiet in aspect, but by no means bearing a plague-stricken appearance; indeed, had I not known of the prevalence of cholera I should have been surprised to have been told of it, so little is the place changed from its usual appearance. The bay looks rather deserted, as, of course, the port is closed and most of the larger shops are shut, business being nearly at a standstill; but people lounge about in fair numbers day and evening. The only typical signs of the visitation are the cleanliness—or rather, I should say, the comparative cleanliness—of the streets and the strewing of disinfectants at street corners and round infected houses. We have arrived at the end of the epidemic, which is now steadily subsiding; the panic is over, and I have no doubt that another fortnight or three weeks will see the end of it.

The death-rate throughout has been very low for cholera, only reaching a maximum of 26 per cent., and the cases have been almost entirely confined to the poorer and lower orders, scarcely any persons who are well-to-do having been attacked. The English, of whom there are fifty or so here, have escaped entirely. It is now two months and a half since the disease first appeared here, and there have been 264 deaths from it out of over 1000 cases. The highest number of deaths in one day, according to the official lists furnished me, is 14 on the 25th ult., the highest number of new cases being 83 on the next day.

The following table gives the progress of the disease from day to day:—

Date.	Fresh cases.	Deaths.	Date.	Fresh cases.	Deaths.
Nov. 1st	—	3	Nov. 27th	60	10
,, 2nd	2	4	,, 28th	72	14
,, 3rd	3	1	,, 29th	76	10
,, 4th	1	2	,, 30th	74	8
,, 5th	2	1	Dec. 1st	55	8
,, 6th	4	2	,, 2nd	50	4
,, 7th	3	5	,, 3rd	25	13
,, 8th	3	3	,, 4th	28	5
,, 9th	4	4	,, 5th	29	5
,, 10th	8	6	,, 6th	23	6
,, 11th	7	5	,, 7th	40	1
,, 12th	10	8	,, 8th	19	7
,, 13th	12	5	,, 9th	26	4
,, 14th	15	5	,, 10th	12	6
,, 15th	27	11	,, 11th	19	4
,, 16th	21	5	,, 12th	18	5
,, 17th	37	6	,, 13th	17	2
,, 18th	27	3	,, 14th	14	1
,, 19th	23	6	,, 15th	14	2
,, 20th	40	7	,, 16th	3	1
,, 21st	59	12	,, 17th	4	4
,, 22nd	45	7	,, 18th	2	2
,, 23rd	29	9	,, 19th	5	1
,, 24th	52	8	,, 20th	6	1
,, 25th	59	14	,, 21st	2	0
,, 26th	83	9	,, 22nd	4	0

The authorities are dealing with the outbreak in a fairly satisfactory manner; they have lately instituted a house-to-house visitation, inquiring into the sanitation of each dwelling and vigorously destroying or disinfecting all infected clothing, bedding, and furniture. This destruction of property tells hardly upon the poor, and, trade being paralysed, many men are out of employment, which adds considerably to the misery and want among them. To meet this a subscription was started, the Spanish Government giving £200, the Cable Company a like sum, while the merchants of all nationalities responded liberally. These funds have been used to provide food and clothing for those in actual need who are unable to work. Employment is found for able-bodied men in street cleaning, fumigating, &c. I have been to one of the food-distributing centres in a poor quarter of the town. The building is a chapel turned for the nonce into a soup kitchen. Here was collected a crowd of women and children—the latter being very numerous—waiting for the distribution to begin. On a table in the centre of the nave was a large pile of loaves of bread, each weighing about half a pound, and an enormous tin utensil full of a thick soup, the ingredients of which were rice, beans, lentils, and maize, served in meat stock. The allowance to each person is one loaf and a pint of soup twice a day, which is given to them on producing a ticket issued by one of the subcommittees of inquiry—for applications for assistance are looked into. The allowance is the same for children and adults, and it is a noticeable fact that the youngsters look healthy and fat. I doubt whether the majority of them have ever had so much food or of such good quality in their lives. Those I saw at the soup kitchen appeared to be healthy and happy. All were, of course, dirty—they always are so—but they were as far removed in bodily condition from the haggard, anxious folk to be seen at a London soup kitchen as possible, to judge from appearances. Of course here there is no bitter cold to contend with; children run about with nothing on but a shirt, or even naked; all are barefooted.

After leaving the soup kitchen I went to the lazaretto, to which all cases of cholera which cannot be properly isolated at home are removed. It is a long, narrow, high, stone building on the seashore just outside the town, surrounded by a wall on all sides, and looking, with its small barred windows and guarded gate, uncommonly like a prison. There are two long wards (male and female) in the main portion of the building, each being some 70 ft. long by 14 ft. high and each containing twenty-four beds. The male ward is on the lower floor, where I saw some twenty cases—nearly all children—but only one, an old man, in a really serious condition. The nurses are Roman Catholic Sisters, and these are assisted by a few men. I noticed that the place was built with good intentions as to ventilation, having five windows on either side, facing each other, at a height of nine or ten feet from the ground, so that currents of air could and should pass right across the room above the beds of patients and carry off heated and impure air. These windows were without exception closed, and not only closed, but the crevices were carefully sealed with strips of newspaper pasted over them; consequently, the only means of ventilation were afforded by the door which opened at one end of the room from an ante-chamber communicating with the open courtyard. Needless to say, the atmosphere was foul. The bedclothes were far from clean; indeed, some were absolutely filthy, but the floor was passable. The only clean things in the place were the nun's coifs and aprons. This fetidity had attracted swarms of flies into the place, and it was pitiable to see the sick literally covered with these pests and impatiently waving their hands to drive them off. The old man I mentioned above was in a comatose state, and his face, neck, and arms were quite black with flies, which had even crept into his ears, nostrils, and open mouth, which was covered with crusted saliva. The walls were hung with sacred pictures, bad in design and gaudy in colour. At the end of the room opposite to the door a wooden stair-way led up to the female ward. This was a replica of the one below, but was very scantily filled with patients, most of whom, again, were children. Nearly all in the upper ward were convalescents.

There is no resident medical man in the lazaretto, but as far as I can gather one calls in occasionally and irregularly, the Sisters of Mercy treating the sick during the intervals between the visits. One portion of the lazaretto is devoted to the fumigation of the clothing and bedding of patients. The method of sterilisation adopted is that of heat. There is a large metal chamber in the form of a cylinder connected with pipes for steam-carriage leading from a boiler. This chamber is some 8 ft. long by 5 ft. in diameter, and is fitted internally with a cot on wheels which run on tram lines. These lines are continued outside the chamber for a distance sufficient to allow the cot to be run out of it and filled

with the articles to be sterilised. When filled the cot is run into the interior of the receptacle, the door hermetically secured by screw handles, and the steam turned on. On leaving the lazaretto I was disinfected by a spray of corrosive sublimate solution thrown all over me. There were about a dozen English visitors, all invalids, stranded here, unable to get away. They all look upon cholera as a matter of no importance, so far as they are concerned, but I can see that they will leave on the first opportunity. There is a burial law which provides that no bodies should be buried until they had been placed for twenty-four hours in the mortuary in a glass-faced coffin and watched by an attendant. Great difficulty was found in obtaining people to do this work until four bull-fighters, who were unable to leave the town, were employed to watch the cemetery and mortuary and to superintend the fumigations of infected houses. These posts, until the bull-fighters volunteered, the authorities were unable to fill.

We are cut off from the rest of the world in everything except mails, which are taken to Europe weekly by homeward bound ships going direct to England. The small vessel which brought me from Las Palmas calls from there weekly with mails and cargo, but takes hence mails only, and she is kept in the very strictest quarantine when lying off Las Palmas, where they are in terrible dread of cholera.

The towns and villages situated in other parts of the island have all, with the exception of Orotava, been visited with varying degrees of severity by cholera. Each town or village has surrounded itself by a cordon and all intercommunication is rigidly suspended, the state of panic inland being greater than it has been here. Orotava is the chief resort of invalids from Europe and they have been specially strict about the possibilities of infection. The season in Teneriffe, it is needless to say, has been wellnigh ruined.

The epidemic has now died out, but a few quotations from the official figures will serve to indicate its course and severity. From the middle (15th) of November to the end (7th) of the first week in December the average number of new cases daily was 42·75 and the average daily death-rate from cholera 7·9. From this date onwards the number of new cases at first gradually and at last rapidly declined. Since Dec. 19th only 2 deaths have occurred, and there have been no fresh cases since the 22nd of the same month.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6755 births and 4654 deaths were registered during the week ending Jan. 20th. The annual rate of mortality in these towns, which had increased from 22·6 to 28·6 per 1000 in the preceding three weeks, declined last week to 23·2. In London the rate was 23·7 per 1000, while it averaged 22·9 in the thirty-two provincial towns. The lowest rates in these towns were 15·2 in Halifax, 15·7 in Leicester, 16·3 in Croydon, 16·5 in Portsmouth, and 16·9 in Oldham; the highest rates were 26·9 in Derby, 28·3 in Bristol, 29·9 in Birmingham, 38·0 in Plymouth, and 42·4 in Norwich. The 4654 deaths included 497 which were referred to the principal zymotic diseases, against 496 and 548 in the preceding two weeks; of these, 194 resulted from whooping-cough, 84 from measles, 74 from diphtheria, 46 from scarlet fever, 43 from "fever" (principally enteric), 40 from diarrhœa, and 16 from small-pox. No fatal case of any of these diseases occurred last week in Norwich; in the other towns they caused the lowest death-rates in Leicester, Portsmouth, Brighton, and Derby; and the highest rates in Bristol, Bolton, Salford, Plymouth, and Birkenhead. The greatest mortality from measles occurred in Wolverhampton, Salford, and Birkenhead; from scarlet fever in Burnley and Huddersfield; from whooping-cough in Bristol, Cardiff, Croydon, Salford, Bolton, and Plymouth; and from "fever" in Sunderland. The 74 deaths from diphtheria included 48 in London, 4 in Salford, and 3 each in Birmingham, Liverpool, Leeds, and Sheffield. Six fatal cases of small-pox were registered in Birmingham, 4 in Bradford, 3 in Bristol, and 1 each in West Ham, Leeds, and Hull, but not one in London or in any other of the thirty-three large towns. There were 82 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 20th inst., against 93, 94, and 88 at the end of the preceding three weeks; 14 new cases were admitted during the week, against 15 and 12 in the preceding two weeks. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital at the end of the week was 2645, against 2988, 2855, and 2736 on the preceding three Saturdays; 246 new cases were admitted during the week, against 210 and 224 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 566 and 762 in the preceding two weeks, declined again to 547 last week, and were 198 above the corrected average. The causes of 72, or 0·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Nottingham, Bradford, Newcastle-on-Tyne, and in ten other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Halifax, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·5 and 23·8 per 1000 in the preceding two weeks, declined again to 21·6 during the week ending Jan. 20th, and was 1·6 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·5 in Greenock and 19·4 in Aberdeen to 27·4 in Perth, and 34·7 in Paisley. The 616 deaths in these towns included 24 which were referred to whooping-cough, 13 to diphtheria, 9 to scarlet fever, 5 to diarrhœa, 5 to "fever"; 2 to small-pox, and 1 to measles. In all, 59 deaths resulted from these principal zymotic diseases, against 76 in each of the preceding two weeks. These 59 deaths were equal to an annual rate of 2·1 per 1000, which was 0·4 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had increased from 27 to 48 in the preceding four weeks, declined again to 24 last week, of which 13 occurred in Glasgow, and 4 in Dundee. The deaths referred to diphtheria, which had been 12 and 8 in the preceding two weeks, rose again to 13 last week, and included 6 in Glasgow, 2 in Dundee, and 2 in Leith. The 9 fatal cases of scarlet fever exceeded by 4 the number in the preceding week, and included 5 in Glasgow, and 3 in Edinburgh. Of the 5 deaths referred to different forms of "fever" 4 were recorded in Glasgow. The 2 fatal cases of small-pox were registered in Leith. The deaths referred to diseases of the respiratory organs in these towns, which had been 146 and 157 in the preceding two weeks, declined to 150 last week, and were 77 below the number in the corresponding week of last year. The causes of 34, or nearly 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 27·1 and 42·5 per 1000 in the preceding two weeks, declined again to 30·9 during the week ending Jan. 20th. During the past three weeks of the current quarter the death-rate in the city has averaged 33·5 per 1000, against 25·9 in London and 20·3 in Edinburgh. The 207 deaths registered in Dublin during the week under notice showed a decline of 78 from the number in the preceding week, and included 25 which were referred to the principal zymotic diseases, against 13 and 21 in the preceding two weeks; of these 25 deaths, 12 resulted from whooping-cough, 5 from "fever," 4 from diarrhœa, 3 from measles, 1 from diphtheria, and not one either from small-pox or scarlet fever. These 25 deaths were equal to an annual rate of 3·7 per 1000, the zymotic death-rate during the same period being 2·9 in London and 1·2 in Edinburgh. The fatal cases of whooping-cough, which had been 5 and 6 in the preceding two weeks, further rose to 12 last week, a higher number than in any week since March, 1886. The deaths referred to different forms of "fever," which had been 2 and 4 in the preceding two weeks, further increased to 5 last week. The 3 fatal cases of measles showed a decline of 4 from the number in the preceding week. The 207 deaths registered in Dublin last week included 38 of infants under one year of age, and 58 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the high numbers recorded in the preceding week. Eight inquest cases and 7 deaths from violence were registered; and 59, or more than a fourth, of the deaths occurred in public institutions. The causes of 22, or nearly 11 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-MAJOR-GENERAL J. INKSON has been selected for the appointment of Principal Medical Officer on the Staff at Malta. Surgeon-Colonel Hamilton, Principal Medical Officer in London and the Home District, has been selected for appointment to the Staff of General Cameron, K.C.B., commanding at the Cape. Surgeon-Captain J. M. Reid, has reported his return to Netley, and resumed the duties of Officer in Medical Charge of troops, staff, and families; Surgeon-Captain Semple, the officer relieved, is reported to the Surgical Division for duty. Leave of absence on private affairs has been granted to the undermentioned officers for the periods mentioned: Surgeon-Captain S. E. Duncan, Jan. 15th to Feb. 13th; Surgeon-Captain D. Semple, Jan. 25th to March 13th. Surgeon-Major Falvey has embarked for service in Barbadoes. The following officers have returned in the *Bothnia* from a tour of service in India:—Surgeon-Captains Marder and Bate. Surgeon-Major Beamish has reported his arrival in Dublin. Surgeon-Lieutenant Stallkartt is temporarily attached to the Southern District pending embarkation for India. Surgeon-Major Gormley has reported his arrival at the Cape of Good Hope for duty. The following officers are under orders to proceed to England on completion of a tour of service in India:—Surgeon-Major Stevenson and Surgeon-Captains Saunders and Trotter. Surgeon-Captains Windle and Cree have been selected for appointments at the Depôt, Medical Staff Corps, Aldershot. Surgeon-Major Weston, Southern District, and Surgeon-Major O'Brien, Newry, have resumed duty at their several stations after leave of absence. Surgeon-Colonel Hamilton is under orders for the Cape to relieve Surgeon-Colonel Colahan, who comes home on promotion.

ARMY MEDICAL STAFF.

Surgeon-Major-General Thomas Norton Hoysted is placed on retired pay. Surgeon-Major-General Frederick William Wade retires on retired pay. Brigade-Surgeon-Lieutenant-Colonel J. W. Maxham, M.D., A.M.S., obtains promotion to the rank of Surgeon-Colonel, consequent on the advancement of Surgeon-Colonel J. Davis. Surgeon-Colonel J. Davis A.M.S., obtains promotion to the rank of Surgeon-Major-General, consequent on the retirement of Surgeon-Major-General Hoysted.

INDIA AND THE INDIAN MEDICAL SERVICES.

The Queen has approved of the retirement from the Service of the undermentioned officers:—*Bengal Medical Establishment:* Surgeon-Colonel Chas. Peter Costello (dated Jan. 1st, 1894); Brigade-Surgeon-Lieutenant-Colonel Edward Alfred Birch, M.D. (dated Oct. 4th, 1893); Surgeon-Lieutenant-Colonel Edward Reginald Johnson (dated Jan. 2nd, 1894). *Bombay Medical Establishment:* Surgeon-Major David Robert Ross, M.D. (dated Dec. 25th, 1893). Surgeon-Captain H. R. Woolbert, M.B., I.M.S. (Bengal), Agency Surgeon, Meshed, is appointed, on return from furlough and extraordinary leave, to officiate as Medical Officer of the Deoli Irregular Force and of the Harauti and Tonk Political Agency, and Surgeon-Captain J. Chaytor-White, M.B., I.M.S. (Bengal), is re-appointed to officiate as Medical Officer of the Meywar Bhil Corps. The services of Surgeon-Lieutenant W. E. A. Armstrong, I.M.S. (Madras), are replaced at the disposal of the Military Department, from the date of relinquishing Officiating Medical Charge of the Meywar Bhil Corps. Surgeon-Captain W. G. Pridmore, I.M.S., is appointed to the Medical Charge of the 12th Burmah Battalion, Madras Infantry, and Surgeon-Captain D. H. McDonell Graves, I.M.S., to the Officiating Medical Charge of the 21st Madras Pioneers. The services of Surgeon-Captain U. N. Mukerji, M.B., I.M.S. (Bengal), are replaced at the disposal of the Military Department.

NAVAL MEDICAL SERVICE.

Deputy-Inspector-General of Hospitals and Fleets Charles Henry Slaughter is promoted to the rank of Inspector-General of Hospitals and Fleets. Staff-Surgeon Michael Fitzgerald is promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet. Fleet-Surgeon Albert Charles Queely is placed on the Retired List, at his own request. Surgeon John Eustace Webb, M.B., is placed on the Retired List of his rank.

The following appointments are announced: Surgeon Edward C. Ward, to Chatham Hospital. Surgeon and Agent: Robert Walker, at Clovelly.

VOLUNTEER CORPS.

Artillery: 9th Lancashire: Surgeon-Major R. Patrick, M.D., to be Surgeon-Lieutenant-Colonel.—The Highland: Surgeon-Lieutenant F. M. Mackenzie resigns his commission.—*Rifle:* 1st Volunteer Battalion, the Prince of Wales's (North Staffordshire Regiment): Surgeon-Lieutenant Joseph Willian Dawes is appointed Second Lieutenant.

VOLUNTEER MEDICAL STAFF CORPS.

The London Companies: John Francis Butler-Hogan, Gent., to be Surgeon-Lieutenant.

THE NAVAL TRAINING SHIPS AT DEVONPORT.

Mr. Arnold Forster, M.P., in a recent communication to the *Western Morning News*, calls attention to the unsatisfactory condition of these training ships in connexion with a series of questions he addressed to the Secretary to the Admiralty, during the past autumn session of Parliament. He says that the official answers he received are not in accord with the results of his own personal observation, and asserts his belief that the ships are dangerously overcrowded, and that the school accommodation is such as would not be sanctioned in any public elementary school in England. There are no authentic details of recent date as to the state of health of the lads on board these ships. The latest statistical results that have been officially published are contained in the Report on the Health of the Navy for 1892. Taking the mortality and invaliding rates of the *Impregnable* and *Lion*, however, for that year it is shown that the figures are greatly in excess of those of the Home station and of the other training ships, notwithstanding that the boys on board these two training ships are the pick of their class, and should consequently have a very low death-rate. The average complement of these two ships for 1892 was, we find, 1365 and 1325 respectively, the numbers invalided were 59 and 91 and the mortality 19 and 14 in the *Impregnable* and *Lion* respectively. The *Western Morning News*, in calling public attention to Mr. Arnold Forster's communication, comments upon the facts contained therein, and adds that the figures certainly point to something being wrong and that none who have been over either the *Lion* or *Impregnable* could conscientiously aver that they were healthy places for young life. If the Government are not prepared to recommend the disuse of training ships of this class, in which the boys' activities are cramped, they should at any rate see that their sanitary condition is satisfactory and that there is no overcrowding. As regards the health of these training ships during the past year, no statistical information has, as we have said, yet been published.

THE INDIAN TROOPSHIP SERVICE.

It is understood that the Indian troopships are to be paid off and sold. Of late much inconvenience and loss of time have arisen from their frequently breaking down and being delayed on a voyage. They have done good work in the past, but they are old and past doing it now. No branch of the Army has probably had a longer or more intimate acquaintance with these troopships than the Army Medical Service during the number of years these vessels have been engaged in the Indian troop service system, the aggregate number of medical officers of the British and Indian services who have made passages in them, and some of them several passages, must be very large, to say nothing of the officers in medical charge of troops going out to India, or doing duty with invalids coming home from that country.

DEATHS IN THE SERVICES.

Brigade-Surgeon Thos. Bassett Reid, who died at Brussels on the 11th inst., entered the Service in 1851, and retired in 1881. He served during the Santal Insurrection and during the Indian Campaign of 1857 and 1858, including the actions of Chuttra, Gopalgunge, Khodgunge, and the entry into Jelleghur, the affair of Shumshabad, the storm and capture of Meangunge, and the siege and capture of Lucknow. Brigade-Surgeon Reid also served in Oude during the campaign of 1859, and in the Ashanti War in 1873 and 1874, receiving the medal awarded.

ARMY MEDICAL SCHOOL, NETLEY.

Under authority from the Director-General the Surgeons on probation, British Medical Service, attending the sixty-

seventh session of the Army Medical School, will be granted leave of absence from Feb. 1st to 18th, 1894, inclusive. They will report themselves to the general officer commanding and to the principal medical officer, Aldershot, before noon on Feb. 19th, for the purpose of undergoing instruction at the depôt of the Medical Staff Corps.

Surgeon-Major Henry James Paine, an old officer of the Welsh Regiment (3rd Battalion), recently died at his residence, Elmsfield, Cardiff. He was in his seventy-eighth year, and joined the old Glamorgan Light Infantry as Surgeon in 1852, becoming Surgeon-Major, Militia Medical Department, in 1873, and retiring in 1883.

Correspondence.

"Audi alteram partem."

"THE ETHICAL POSITION OF THE MEDICAL PROFESSION."

To the Editors of THE LANCET.

SIRS,—I have read with much interest Dr. Legge's letter on the above subject in THE LANCET of Jan. 13th last, and quite agree with his remark that the only practical way of limiting the continual influx into an already overstocked profession is to make it compulsory on all applying to be registered as medical students to possess a B.A. degree from one of the universities of the United Kingdom, of which there are now twelve; but may I be allowed to observe that a great deal is to be done within the profession to improve matters. Let the General Medical Council consider it "infamous conduct" for a practitioner to take a fee less than the lowest mentioned in the medical tariff—viz., 2*s.* 6*d.*—and to attend a midwifery case for less than a guinea. Many practitioners can be found who, by trying to maintain the dignity of the profession, can hardly pay their rent, whilst their neighbours are, by charging low and unprofessional fees, obtaining large and extensive practices, employing, perhaps, one or two assistants. Competition and emulation there must be, for all men are not alike, some attracting more popularity than others, but let these vices, as they are now, become virtues and let the competition be honourable and on the same terms. Let each practitioner who conducts the sixpenny, shilling, and eighteen-penny practices adopt the recognised tariff of fees, dispense with the services of his assistant, do his own work himself, and only as much as he can do comfortably, and I venture to say that there would be room for all. It would pay him far better in the long run. He would elevate himself and his profession in the eyes of the public, he would lead a much less harassing life, probably adding to it another ten years, be on better terms with his professional brethren, and give his less fortunate neighbours a chance to live as well as himself. Can we be surprised at the public confusing us with shopkeepers when patients are permitted day after day to ask the practitioner without a word of remonstrance, on being handed his medicine, "How much is it?" the answer generally being, "A shilling" or "Eighteenpence," as the case may be. How can they help considering us as "medicine vendors" instead of physicians when we ourselves encourage it. I am now alluding to working people, whose education does not enable them to know better. It is obviously hard for the practitioner who, in his determination to uphold the dignity and honour of his profession, has to appear to "sit upon" his patient by saying, "I give you the medicine; my consultation fee is 2*s.* 6*d.*," when he knows all the while that his neighbours are undercutting him as mentioned above. It may be argued, What is to become of respectable poor people when ill, who are too honest and thrifty to make themselves paupers, and too poor to continue long to pay the minimum fee? These people must obviously be attended by some one. The answer appears to me to be very simple. Most patients are able to pay the fee for a certain time, but if the attendance becomes unduly prolonged, and they are unable when in work subsequently to pay what is owing, rather than lower the dignity of the profession let us either see our patients twice for one fee or attend them gratuitously. An occasional act of charity in a deserving case would surely not do us any harm, and the cost of a little medicine to us would seldom exceed the price of a newspaper. Until the above plan is adopted we must expect to be confused with shopkeepers. Eradicate from the public mind the idea that they are paying for medicines instead of for skill and things will be different. The remedy appears to be in our own hands.

I am, Sirs, yours truly,

East Moulsey, Jan. 19th, 1894. W. W. HARDWICKE, M.D.

To the Editors of THE LANCET.

SIRS,—I read with interest the letter of Dr. George A. Legge in THE LANCET of Jan. 13th. He is distinctly in error as to the entrance to the legal profession, as you point out in your footnote; although I agree with him that it would be to the advantage of the profession and to the public if it were necessary for us to possess a degree in arts of a university before starting our career as students of medicine. My object in writing to you is to point out that lessons are to be learned and deductions made from a comparison of the status, control, and protection of the medical and legal professions. On asking recently a brother, who is a solicitor, whether, if circumstances required, I should be allowed to argue a friend's case for him, say, in a police-court, and without payment, the answer was prompt and emphatic, "Certainly not, because, don't you see, you would be infringing the *rights* of a solicitor." Now, Sirs, if this is so (and I have no reason to doubt but that it is correct), surely here is an argument that we are entitled to similar protection. Beyond that, possibly, legal men's incomes might be diminished, and that some more friction would be added to the legislative machinery, I fail to see how the public as a whole would suffer if laymen did argue their friends' cases in courts of law.

Assuming that laws are made for the good of the million—not for the individual or for the individual profession—and that it has been found necessary for the public weal that legal men should be protected in their rights, *a fortiori* should not those men who are learned in medicine and licensed (indirectly) by the State to practise the same be protected in the rights of their profession? Let us have our preliminary degree in arts, let us have a thorough curriculum and thorough examinations: but, having entered the profession, let us have that protection to which our education and our responsibility to the public entitles us; let us have a Medical Act in which the powers are evident, and a Medical Council thoroughly representative (in the *fin de siècle* sense of the word), which will make use of its powers. All with whom I have discussed the matter are agreed that now *par excellence* is the time to make efforts for a reform of our Medical Act: *now*, because the public have been startled by the information given by the press of the doings of "The Unqualified Doctor," "The Prescribing Chemist," "The Unqualified Doctor Again," &c.

I will not presume to suggest the terms of the draft for a new Medical Act: whether it should be so directed as to do away with unqualified assistancy, prescribing by chemists, and dispensing by medical men (although I feel that our status would be raised considerably if it could be so); but I will venture to suggest a "plan of campaign" for transforming our Bill, when drafted, into law—viz., that a deputation, or several deputations, call on the member of Parliament in each constituency and ask for his support. You know, Sirs, that the political fight nowadays is a keen struggle, and that votes are not wantonly thrown away, and you know also that medical men are recognised as those who have some influence in a constituency. Need I say more in support of my plan? Fortunately this is a matter which need not arouse the proverbial jealousy of our profession—it is a matter of "each for himself and the State for us all." I apologise for the length of this letter, but hope that you will kindly spare some space in THE LANCET for its publication.

I am, Sirs, yours faithfully,

Devonshire-road, S.W., Jan. 22nd, 1894. HERBERT TANNER.

OBSTETRIC AND GYNÆCOLOGICAL NURSING.

To the Editors of THE LANCET.

SIRS,—In reference to the review in THE LANCET of Jan. 20th of my edition of "A Handbook of Obstetric and Gynæcological Nursing," whilst of course disclaiming the

smallest right or desire to complain of any fair criticism, however adverse, I have, as I am confident you will readily admit, some right to repudiate any representation that may be unfair and injurious (even though not so intended) with regard to the opinions I hold or the methods of practice I advocate; therefore, I would venture to request the insertion of the present letter in THE LANCET. Your reviewer, speaking of my observations on the management of natural labour, says: "More prominence should, we think, have been given to the paramount importance of antiseptics, and detailed directions given as to how they may be efficiently employed in attending an ordinary case of labour." In further allusion to my alleged neglect of proper antiseptic directions, the reviewer adds: "It is of little avail for the medical man to employ elaborate antiseptic measures when a nurse whose hands are anything but aseptic has already examined the patient."

The plain inference from this is that no sufficient stress has been laid by me on the vital importance of strict asepsis and the use of antiseptics; for your reviewer makes no allusion whatever to the numerous passages throughout the book in which those measures are enforced and in which directions for their employment are distinctly stated, and so leaves the readers of THE LANCET under the impression that they were ignored by me. In disproof thereof I shall now merely submit a couple of brief extracts which I might very easily multiply to show that the editor of "A Handbook of Obstetric and Gynæcological Nursing" did not fail to impress on those for whom the work was designed the paramount necessity of perfect cleanliness and the intelligent and judicious use of antiseptic measures in all the duties of their calling. Speaking of the causation of puerperal septicæmia, I said: "In such instances, as in all other obstetric cases, the infection may thus readily be introduced by the hands of the midwifery attendant if so negligent or so ignorant as to neglect the duty of obviating that risk as far as possible by scrupulous personal cleanliness and hand-washing by use of nail-brush, hot water, and carbolic soap before each and every vaginal examination or contact with the lying-in patient" (p. 139). In the list of things which the nurse is directed to have in readiness and within reach in the lying-in room an antiseptic solution will be found included (p. 67). And, again, as I observed: "Nor can too much stress be laid on the absolute necessity of attention to the sanitary surroundings of the lying-in-room, as well as the most scrupulous personal cleanliness of the patient and those about her. The nurse's primary duty in every puerperal case is the removal of all septic matter or possible sources of infection, not only from the external parts and vaginal orifice by frequent sponging or washing out with some antiseptic solution, but also by the thorough cleansing out of the uterus and vagina when necessary by hot water or antiseptic douching with the irrigator, subject to the approval of the doctor if there be one in attendance" (p. 141). The method of preparing and employing such antiseptics—viz., peroxide of hydrogen, boric and carbolic acids, and corrosive sublimate solution, &c., are fully detailed in the following and other pages, besides being again discussed at greater length in two chapters specially occupied with a detailed account of "the principal antiseptics or disinfectants which, either in gynæcological or in obstetric nursing," may be employed. I therefore trust that, whatever other defects may be found in the book referred to, the writer has sufficiently vindicated himself from any failure to point out "the paramount importance of antiseptics and detailed directions as to how they may be employed," either "in ordinary cases of labour" or under other circumstances.

I am, Sirs, yours faithfully,

THOS. MORE MADDEN.

Merrion-square, Dublin, Jan. 20th, 1894.

APPARENT DEATH.

To the Editors of THE LANCET.

SIRS,—A sensational story appeared in a leaderette in the *Daily News* of Jan. 20th. It is there stated that a man who had been apparently dead for several days recovered consciousness after he had been placed in a coffin. As I am responsible for the postponement of the funeral in question I think it right to put on record in the columns of THE LANCET the very small substratum of fact on which the story is based. It will prevent the quotation of this case in all discussions on the morbidly fascinating theme o premature burial.

On Jan. 19th I was stopped in the street and asked to examine a body which it was intended to bury in half an hour. The statement of the friends was that the man had been found dead in bed lying on his side early in the morning of Jan. 16th, and that on the morning of the 19th, while placing the body in the coffin, it was found to be limp and that the back was somewhat warm. It was also stated that more than twenty-four hours after death blood had exuded from some scratches on the forehead. Under these circumstances the friends were doubtful whether the man was really dead. I found the body, that of a spare man whom I had known well during life, lying in a coffin. The surface was uniformly cold as far as I could reach; it was perfectly white except for a patch of hypostatic congestion on the side, which I was told was present when the body was found on the 16th, and there was also some lividity of the tips of the fingers. The muscles of the jaw and fingers were contracted, and those of the elbow flaccid. The eyelids were half open, the pupils contracted and the eyeballs inelastic on pressure. No respiratory or cardiac movements could either be felt or heard. There was no foam about the lips, no cadaveric odour, or any other evidence of decomposition. On applying the diaphanous test to the hands merely by the aid of a lighted wax match a bright scarlet colour was visible. At this time, as nearly as could be judged, eighty hours had elapsed since death. Feeling no doubt in my own mind that life was extinct, and being in the presence of the female members of the family, I did not think it necessary to open a vein or attempt to vesicate the skin by the application of heat. As might be expected, the family were in a state of great agitation, and I therefore advised that the funeral should be deferred until there were evident signs of decomposition. Interment under such circumstances would certainly have been followed by rumours that the man had been buried alive and probably have led to exhumation and a subsequent inquest. On the next day there could be no possible doubt, and the body has been buried. No post-mortem examination was considered to be necessary, and I understand that the symptoms during life were compatible with death either from angina pectoris or with the rupture of a thoracic aneurysm. This was suspected, but its existence was not made clear by the physical signs. On the latter hypothesis the emptying of the bloodvessels would to some extent explain the late development of the external signs of decomposition.

Medically, there is nothing extraordinary about the case. The remarkable fact is the rapid growth of the myth, which within sixteen hours of my examination in a small house in a country town 130 miles from London was being circulated all over the world in the columns of a great newspaper, and in spite of the fact that I had explained to the only reporter, who came over specially from Birmingham, that there was nothing mysterious in the case, the man being undoubtedly dead.

I am, Sirs, yours faithfully,

PHILIP B. MASON,

Senior Surgeon to the Burton-on-Trent Infirmary.

Burton-on-Trent, Jan. 20th, 1894.

THE THERAPEUTIC ACTION OF FREE IODINE.

To the Editors of THE LANCET.

SIRS,—In an "Analytical Record" in THE LANCET of Jan. 6th last, when expressing approval of a wine containing iodine, you say: "Iodine has been sparingly employed hitherto on account of its irritant and other disagreeable properties." If that be so, and the profession labours under the erroneous impression that iodine is productive of disagreeable or irritating results when taken in a free state, the sooner that groundless impression is removed the better. It can only have its basis in inexperience. Free iodine as contained in the tinctures used in France, Austria, Belgium, the United States, Denmark, Norway, Sweden, Holland, Germany, Hungary, Russia, Portugal, Switzerland, and Spain, all of which are free from iodide of potassium, has, when properly diluted, no irritating or disagreeable effect, and from three to five grains can be taken, in doses of from one-half to a whole grain, daily without the slightest discomfort, by the most delicate stomach. It is the iodide of potassium that does the mischief, and why that salt was ever introduced into the "tinctura iodi" of the British Pharmacopœia no one can divine, unless it be the sage counsellors

who were responsible for rendering the present tincture perfectly useless by actually adding to the quantity of the poison with which the tincture had been previously adulterated. If only the autocrats of our medico-pharmaceutical science possessed the smallest acquaintance with practical pharmacy, or combined a smattering of therapeutical knowledge with their drug-lore, it would not be necessary—as it now is—to write "codex" after many of the commonest preparations in order that the drugs prescribed may, at least, be dispensed approximately pure. It is, however, probably hopeless to expect pharmaceutical reform while the profession of medicine in this country bows down to "soda" and "potass" as the two giants capable of conquering every foe they have to encounter. Perhaps the time may come when it will be "discovered" that sodium and potassium are really the greatest enemies of health as employed by those who assume to be its preservers and restorers.

I am, Sirs, yours faithfully,

Hanover-square, W., Jan. 19th, 1894. MORTIMER GRANVILLE.

VACCINIA AND VARIOLA.

To the Editors of THE LANCET.

SIRS,—The following passage occurs in the current issue of THE LANCET in a review of Dr. Currier's 'Outlines of Practical Hygiene": "We were under the impression that the identity of variola and vaccinia does not even yet rest upon a sure experimental basis." Your reviewer clearly means, not *identity*, but *identity of origin;* and his meaning is an illustration of error's tenacity of life. In these days, when people ill able to afford payment for their children's vaccination do nevertheless prefer to pay a private practitioner for the operation on condition that he performs it *inefficiently*, to having it done gratuitously *and efficiently* by a public vaccinator, it is surely of the first importance that vaccination's protective power against small-pox should be demonstrated as resting, not on some mystical attribute, but on the fact that vaccinia is small-pox, mitigated by passing through the calf. Such demonstration has been given, in former days by Mr. Ceely and Dr. Badcock, and a few years ago by Dr. King of Madras and Dr. Simpson of Calcutta. Unless we are to believe those experimenters guilty of an absolutely useless fraud, or to be utterly unable to distinguish between variola and vaccinia, we must hold that the positive evidence of the identity of origin of both, which has been given by them, outweighs a hundredfold the negative evidence of others less skilful, less careful, or less fortunate. The value of such evidence to mankind will, however, be greatly diminished if its very existence be ignored, not by the rank and file of the profession only, but even by those who seek to instruct us by criticism in the professional journals.

I am, Sirs, your obedient servant,

P GOWAN, M.D. Edin.

Upper Bedford-place, W.C., Jan. 20th, 1894.

"THE DETERMINATION OF SEX."

To the Editors of THE LANCET.

SIRS,—Mr. T. Keene, in the last issue of THE LANCET, thinks that all favourable circumstances tend to increase the proportion of female births. If by "favourable circumstances" he means excess of nutrition, he is right so far as lower life is concerned, but, as I pointed out in my original paper, this rule, which holds good in invertebrates and lower vertebrates, is of no effect in mammals, in which class the male, and not the female, is the bigger and stronger. My argument is that as things are reversed from lower life phases in mammals in respect of sexual size, it stands to reason that you want a "stronger" ovum to produce a male than is necessary to produce a female. Mr. T. Keene's statistics of dog-breeding are not borne out by statistics of cattle-breeding (and I fancy sheep-breeding as well) as regards the proportion of sexes with reference to the time of impregnation. As we do not know much or anything about the period occupied in the extrusion of the ova of the bitch, it is futile to attempt to found a generalisation, as does Mr. T. Keene, about sex production on the date of impregnation alone. For that matter, if, as he alleges, things in the dog tend to develop a preponderance of male births, on the same reasoning we should find a difficulty in explaining why any females should be born at all. On the other hand, if we theoretically suppose that in the bitch the process of ovulation (as is likely) proceeds before, currently with, and after the period of heat, then, on my theory, we get back again to the simple explanation that the stronger ova, or those earliest fertilised after extrusion, will be males (and there may be an excess of these ova fertilised at once after a single congress), while the ova which are extruded later, and therefore are last to be fertilised, become females. Excess of male births (supposing Mr. T. Keene is correct as to the dog) is a fact which in no sense necessarily invalidates my theory regarding the exact cause of sex production itself.

I am, Sirs, yours faithfully,

Jan. 22nd, 1894. ANDREW WILSON.

THE PARASITE OF MALARIA: BACTERIOLOGICAL RESEARCHES AND THEIR RELATION TO TREATMENT.

To the Editors of THE LANCET.

SIRS,—I shall be glad if you will find space for this letter in the columns of THE LANCET. The importance of the subject is great when we know that the mortality from malarial diseases is immense as compared with that from other diseases in almost every region of the known world. Dr. Manson, in his clinical lecture on this subject, has demonstrated this. These same forms were laboriously described by Dr. P. Hehir, as is seen by the review of his work.[1] Bacteriology has done something to clear up the diagnosis of this from other tropical diseases by pointing out sufficient data on which to recognise malarial germs in the blood by the microscope. Dr. Hehir's researches have given a negative result as far as treatment goes. He says that quinine has no direct lethal effect on these organisms, but no culture experiments sufficiently extended have as yet been reported proving to us definitely what therapeutic agents are destructive to the malarial germs. Clinically and bacteriologically, I regard the oil of the eucalyptus globulus (eucalyptia) as the most powerful and least harmful of all bactericides to be used in this direction. Opium in such doses as half a grain or one grain is a prophylactic of value. This is confirmed by numerous reports by different Indian surgeons, which again is supported by my personal experience in India and Africa. Dr. Pucci declares that many bad attacks of ictero-hæmaturic fever may be brought on by the use of quinine; doubtless, however, it requires great judgment in acute malaria. Arsenious acid is also useful in chronic forms, but these remedies are not supported by bacteriology. Will the time ever come when bacteriology will aid us in this disease as it has in diphtheria, pointing out the germ, and even also the remedy in sulphur or magnesium sulphite? Much credit is due to Dr. Laveran, Mr. Carter, and Dr. Hehir for their laborious work, and to Dr. Manson for demonstrating and describing this subject to students and the profession in a simple, yet instructive, manner. One question seems to be yet unanswered. Are these seven organisms distinct, or are they phases in the life-history of one germ?—I am, Sirs, yours faithfully,

CHARLES FORBES, M.D., C.M., D.H.P. Cantab.,
Late Surgeon, Warsu Gold Mines, West Africa, &c.

Nazirah, Assam.

FILARIÆ FROM FIJI.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of the 13th inst., on page 96, it is recorded that some filariæ contained in a dog's heart from Fiji were exhibited, and it is stated that they give rise to no symptoms except cough and do not appear to shorten life. My experience points to the opposite conclusion, and my excuse for troubling you with a communication on a subject which may appear of little interest is that only yesterday my opinion was asked about sending a dog from England to Fiji. During a residence of seventeen years in that colony I have owned many dogs and have had some hundreds of others under observation. The worm in question was identified by the late Dr. Spencer Cobbold as the same *filaria immitis*, which is the bane of the canine race in the eastern tracts of Asia, including Japan and parts of India. I have examined a great number of dogs post-mortem and can endorse the statement that the worms sometimes attain a length of five inches; but I have invariably found that they bring about the death of their host in the course of from six months to two years or so from the date of the earliest noticeable

[1] THE LANCET, May 28th, 1892.

signs of their presence in the animal. These signs are a peculiar barking cough which ends in a spasmodic hawking up of frothy mucus, and sometimes in vomiting, progressive emaciation, distressing dyspnœa, and syncope. The cough is instantly produced by patting the dog over either side of the thorax. Old residents in Fiji are perfectly familiar with th symptoms produced by the filariæ, and it is a circumstance of every-day familiarity to hear it said, "Oh, poor so-and-so is doomed; did you not hear him cough?" It is indeed quite pathognomonic; and excepting in one or two favoured localities every dog in Fiji falls a victim sooner or later to these filariæ, unless its career be accidentally cut short by some violence or intercurrent disorder; but it is somewhat strange that bitches resist longer than dogs. Not only the heart but the great vessels, the veins especially, contain mature filariæ as a rule. It is my belief that the ova acquired by the fœtus from the blood of a pregnant bitch may prosper and develop after the birth of the pup, but the symptoms do not usually manifest themselves in puppies of less than six months old, though the baby filariæ are easily detected in the blood. It is quite rare to meet with a dog more than four years old which has been born in Fiji, and imported ones seldom survive their arrival more than two and a half years.

I am, Sirs, your obedient servant,

BOLTON G. CORNEY, M.R.C.S.E.

Earl's Court-square, S.W., Jan. 17th, 1894.

"INFLUENZA IN 1775."

To the Editors of THE LANCET.

SIRS,—Dr. Augustin Prichard is to be thanked for recalling Dr. John Fothergill's admirable sketch of the influenza epidemic of 1775, which appears in the current issue of THE LANCET. It has, however, long been published, being found at p. 251 of the third volume of Fothergill's works (Ed. Lettsom, 1784), where it is followed by a series of replies and comments received by him from other physicians, including Heberden, Sir J. Pringle, and Sir G. Baker. It is curious that only Pringle seems to use the term "influenza," although Dr. Peacock quotes Huxham as stating that the appellation was in common use in England as early as 1743. Dr. Parkes, in his article in "Russell's System of Medicine," quotes from Fothergill's paper.

I am, Sirs, yours truly,

Finsbury-square, E.C., Jan. 18th, 1894. R. HINGSTON FOX.

DRUGGISTS' PRESCRIBING.

To the Editors of THE LANCET.

SIRS,—I have recently had under my care in the out-patient department of a hospital to which I am attached a good example of one way in which the prescribing druggist does harm. A man presented himself with a large tertiary ulcer of the upper lip, extending from the mucous margin to the nostril, and literally to within a short distance of the angles of the mouth (on both sides). The soft parts of the nose were invaded, the columella was destroyed, and the septum was eaten away, resulting in great deformity. The odour was most offensive. The disease was said to have been in existence for two months. When asked why he had not been to see a medical man about it, he said that he had seen a druggist who had given him some ointment, which he had been using, and expected that it would cure him. The usual treatment has sufficed to arrest the ulceration, but, of course, the deformity remains and will probably be incurable. Had this man been sent to consult a qualified practitioner when he applied to the druggist, all this might have been saved. It is difficult to know exactly what was said by the druggist, but there is no doubt of the interpretation which the man put on his statements, for he fully believed that the ointment would effect a cure, and he used it until it was evident that he would soon be without a nose. The ointment was probably harmless in itself, but its use delayed resource to the only curative treatment. I am, Sirs, yours faithfully,

Jan. 24th, 1894. F.R.C.S.

SEAMEN'S HOSPITAL SOCIETY.—The treasurer of this society has received the sum of £376, being the proceeds of fees paid by visitors to the White Star Royal Mail steamer *Gothic* on the 16th ult. A bed in the branch hospital, Royal Albert Dock, is to be named the "Gothic" bed.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Night Home for Manchester Girls.

ON Monday afternoon last an important meeting took place in the Mayor's parlour, in support of the proposal to establish in Manchester a night home for destitute girls of good character. The proposal emanated originally from the Sisters of Charity, who have organised similar homes in other towns, and the movement will probably receive influential support from the Manchester public. Mr. Justice Day seems to have taken special interest in the scheme, and the speeches of the Lord Mayor, the Bishop of Salford, the Earl of Denbigh, Sir Chas. Hallé, Mr. William Mather, M.P., and many others at the meeting referred to showed that a very real need for such an institution exists in this city at the present time. From their experience in the byways of Manchester the Sisters of Charity are deeply impressed with this view. Their object is to provide a home to which girls can go who have either no home at all or one which is even worse than the streets. They will look after the cots of these poor creatures and, if possible, help them into the path of a good and honest life. For some of the girls work will be found at a laundry in Rumford-street, whilst others will be prepared, by a period of probation at the home, for domestic service or other useful employments. Three or four Sisters will always be at the refuge in order to give personal assistance in investigating the circumstances of all applicants and in tendering suitable advice. An important feature of the proposal is that, although inaugurated by the Sisters of Charity, the work of the home will be carried on without reference to religious creed. Every inmate will be free to go to whatever place of worship she may wish, and this entirely without question on the part of the Sisters, who are, nevertheless, of course of the Roman Catholic persuasion. The work is a philanthropic and not a religious one in the ordinary sense of the term. The sum of £2000 is required for the completion of the home; and, although only £250 have already been subscribed, there is little doubt that the full sum will be forthcoming in the large and opulent city in which the home is to be established.

Jan. 23rd.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Scientific Lectures in Newcastle.

THE course of scientific lectures promoted by the Natural History Society of Newcastle at their fine museum has been commenced by the venerable Dr. Embleton, who looked hale and hearty and is as devoted to natural history as ever. His subject was the Extinct Giant Birds of New Zealand, and he elucidated it in a way which held the interest of his audience throughout.

Contemporaneous Suicide.

Two young women, each aged about nineteen, poisoned themselves in Newcastle last week owing, as was revealed at the inquest, to love matters. They were unknown to each other and lived in different parts of the city. In each case carbolic acid was the agent used, which they seemed to have procured with great facility.

The Water-supply of Newcastle and Gateshead.

It is feared that the inhabitants of these towns are at present being treated to Tyne water. Some of the specimens examined this week were in a semi-opaque condition. At a recent meeting of the water committee it was intimated that should the scarcity continue Tyne water would have to be brought into use, but it was stated that it would be "properly filtered." No amount of filtration, however, will satisfy the people of the safety of using water from this source. Filtration of water from a polluted river was tried on a large scale at Hamburg, and the result is a matter of history. Our great towns in the north are badly supplied with water both as to quantity and quality, and will continue to be so until the authorities go further afield for a source, following the example of Liverpool and Manchester.

Newcastle-on-Tyne, Jan. 23rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Scottish Association for the Medical Education of Women.

THE annual meeting of this Association was held in Edinburgh last week, Sir Alexander Christison, M.D., the President of the Association, being in the chair. The fourth annual report was submitted, in which reference was made to the satisfactory arrangements carried out by the managers of the Royal Infirmary for the clinical instruction of the women students, these arrangements being now rather in excess of the demands made by the Triple Qualification Board. As a recognition of the action of the managers Mrs. Auckland Geddes, one of the Vice-Presidents of the Association, had succeeded in raising £500, which sum was presented to the managers of the infirmary to furnish a new ward. The number of students at the college is thirty-seven, and of these twenty-five are attending the infirmary. The financial statement shows that the income of the college has been rather more than £140 below the expenditure. Part of this deficit was met by a balance remaining from a bazaar which had been held a few years before, but the year's operations left the college with £70 of debt. In speaking of the report Mr. Findlay pointed out that the keeping up of the college was essentially a woman's question, and unless those interested in the medical education of women took a more practical interest, by subscribing to its funds, it could not be continued.

The Royal College of Surgeons of Edinburgh and the Royal Infirmary.

The Royal College of Surgeons of Edinburgh, in electing representatives to the board of management of the Royal Infirmary, has departed from the precedent hitherto in practice. The custom has been to appoint Fellows of the College who were not on the acting staff of the Infirmary. This year they have appointed Dr. Argyll Robertson and Dr. John Duncan, both of whom are on the staff. The managers have resented this, and have threatened not to reappoint them to their hospital posts. The legal position of affairs is under consideration; but meanwhile it has given rise to some unpleasantness, which it may be hoped will be removed without leading to bitterness or friction.

Small-pox in Edinburgh and Leith.

Small-pox is still on the increase in Leith, no less than seventeen new cases having been reported last week. The disease, unfortunately, has also appeared in Edinburgh, three cases having occurred, of which one has proved fatal.

Edinburgh Royal Infirmary.

At the meeting of the managers yesterday it was decided by 10 votes to 8 to admit reporters to the meetings of the board. The motion was made by Lord Provost Russell, M.B.

Jan. 23rd.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Graduates' Memorial: University of Dublin.

THE funds for the graduates' memorial in connexion with the tercentenary of Trinity College at the end of last year amounted to £6600, and this sum has been invested in Consols and India stock. It is contemplated to erect inside the college a building to accommodate the various societies. The board of Trinity College have granted a site, and plans for the building are under consideration; the college authorities have also helped the proposed memorial by largely subscribing to the design.

Address and Presentation to Mr. Howard Acheson.

This gentleman has been presented with an address and purse of sovereigns on the occasion of his resignation of the post of medical officer of the Killenagh and Wells dispensary district. It may be mentioned that three years previously, on the occasion of his marriage, Mr. Acheson was the recipient of a handsome and costly presentation.

Sanitary Condition of Dublin.

A meeting of the Dublin corporation was held on Monday to consider the report of the public health committee on typhoid fever. Some of the recommendations were negatived, some were referred to a committee of the whole house, and the following were adopted: a careful survey to be made of all the main sewers and correct observations taken not only with regard to the line but also as to the flow of the sewage, and the borough surveyor to prepare a report on the condition, construction, and section of every line of street sewers, showing the level above the invert at which the drains enter; the improved method of constructing drains, approved of by the borough surveyor in 1892 and adopted by the council, to be the only method allowed in future and to be included in the new by-laws; the council to compel tenement house owners to employ responsible persons to maintain the passages, sanitary appliances, &c., wherever used in common by two or more families, in clean condition day by day; and the by-laws regulating dairy yards, milk shops, and slaughter houses to be reconstituted on such a basis as will enable them to be carried out.

Jan. 22nd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Professional Jealousy.

THE tradition which sanctions the refusal of a French landlord to let rooms in his house to two persons pursuing identical or analogous callings does not apparently extend to the medical profession. Those who, like myself, have acquired experience of apartment-hunting in Paris will know that, as a matter of fact, the presence of a *confrère* in any house constitutes almost invariably a bar to his own entrance therein; but that a landlord is within his right in "taking in" two practitioners and even letting to them rooms on the same floor is proved by a judgment recently delivered by the Fifth Chamber of the Civic Tribune of the Seine. Dr. S—— objected to the proximity of a new arrival, Dr. R——, and, the intervention of the Syndicate of Doctors of the Department of the Seine, made at the request of Dr. S——, having failed to induce Dr. R—— to abandon his intention of taking the rooms, Dr. S—— sued his landlord for 10,000 francs damages, basing his action on the latter's verbal promise not to admit another practitioner into the same house. Seeing that the lease held by Dr. S—— contained no clause to that effect, the Court non suited the complainant. *Apropos* of practitioners' residences, it may not be generally known that there exist in Paris no such "doctors' streets" as, for example, Wimpole-street and Harley-street. Paris practitioners are not a gregarious class, and professional jealousy is, unfortunately, a not unknown quality.

Adders: Toxic Properties of their Blood.

The late Professor Robin in his dictionary gives the following definition of *couleuvre* (adder): *serpent dépourvu de glandes et de crochets mobiles à venin.* Long ago Fontana first showed that the common adder supports with impunity repeated bites of the viper or the subcutaneous inoculation of its venom. MM. Phisalix and Bertrand[1] have recently conducted inquiries into the cause of this remarkable immunity. These observers have studied the toxicity of the blood of two species of adder commonly met with in France—the *couleuvre à collier* and the *couleuvre vipérine*. The blood, collected with antiseptic precautions from the heart of the slightly chloroformed ophidians, was injected into guinea-pigs either at once or after being kept in a cool place for twenty-four hours, the serum only being utilised in the latter case. The result was always uniform and differed in no particular from the results obtained from the inoculation of echidnine (venom of viper)—viz., hypothermia, progressive paresis ending in collapse without loss of sensation, weakening of the heart beats, and generalised vaso-dilatation, with visceral congestions and ecchymoses. There exist, therefore, in the blood of the adder poisonous principles analogous to echidnine, insoluble, like the latter, in alcohol, and very adherent to precipitates. In order to determine the origin of these principles organic extracts were prepared from the liver, pancreas, spleen, thymus, thyroid body, and salivary glands (superior labial glands) of each of three adders) the viscera were separately pounded in equal parts of water and glycerine and allowed to macerate for twenty-four hours). Introduced into the peritoneal cavity of guinea-pigs, all, excepting the extract of the salivary glands, were found to be inoffensive. The salivary gland extract was highly active.

[1] Académie des Sciences, Jan. 8th 1894.

Taking into account the smallness of these glands, it is seen that their secretion must be most virulent, more especially as no reservoir exists, as in the viper. The poisonous symptoms determined by inoculation of this gland-product were identical in character and severity with those provoked by the blood and serum of the same animals. The alcoholic extract was inactive. It is evident that the immunity enjoyed by the adder in respect of the viper's venom (echidnine) is due to the fact that the continual internal secretion of an analogous poison by the superior labial glands constitutes an auto-inoculation which is protective. The importance of this discovery is great, seeing that we are only beginning to become alive to the immense importance to the system of the internal—i.e., reabsorbed—secretion of such bodies as the thyroid, thymus, pancreas, &c.

Heated Cabs and their Dangers.

Many English visitors to Paris who have occasion to utilise the cabs, labelled *chauffée*, which abound in its streets at this period of the year are loud in their denunciation of London cabowners, who neglect this provision for the comfort of their fares. Such critics little dream of the danger incurred in remaining shut up in these poison traps during a *course*. Professor Brouardel[2] relates the two following histories of accidents that happened from this cause on the same day (Dec. 31st, 1893) to a cabman and a medical practitioner. The former fell asleep in his heated cab after having carefully closed the windows. Half an hour later he was taken out dead, and post-mortem examination at the Morgue revealed carbonic oxide poisoning as the cause of the catastrophe. On the other hand, the practitioner had re-entered his heated and closed carriage after an absence of an hour at a consultation. After a drive of five minutes he was seized with giddiness, nausea, and a degree of muscular loss of power that rendered the throwing open of the carriage windows a matter of extreme difficulty. He suffered from the effects of this carbonic acid poisoning for ten further days. In the course of the discussion that ensued M. Moissan stated that this danger was not limited to the *briquettes* of public vehicles, but extended to nearly all the household heating apparatus. The joints of these apparatuses were mostly composed of glazed earthenware, which, under the influence of the heat, soon cracked and allowed the carbonic oxide gas to escape. He said that non-fatal accidents were very common, and he knew many people who complained every winter of malaise, which disappeared in summer with the exit of the determining cause—the deadly *briquette* of the comfortable (?) Paris heated cab. The Academy of Medicine decided to submit the question to its sanitary section, which will report thereon at the next meeting.

Jan. 23rd.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Cholera at Tilsit.

PROFESSOR VON ESMARCH, writing on Cholera in East Prussia,[3] describes an outbreak at Tilsit, in a house inhabited by forty-five people, amongst whom there were seventeen cases with eight deaths. The house was situated close to the Tilsit waterworks. It was evacuated immediately and all its inhabitants were put under observation. The outbreak did not spread.

Curious Case of Phosphorus Poisoning.

Freyhan describes[4] a curious case of phosphorus poisoning. A young man, a performer at fairs who was in the habit of exhibiting the strength of his digestion by eating shavings, glass, leather, soap, coals, blacking, &c., added matches to this already sufficiently miscellaneous list, selecting those tipped with phosphorus. For a time, in consequence of the small number taken, he suffered no inconvenience, but, business becoming brisk in this department, he had occasion to give twenty to thirty performances daily, and in a little more than a week symptoms of phosphorus poisoning occurred, which ended fatally.

Icterus Neonatorum.

Quisling publishes an interesting and exhaustive paper[5] on icterus neonatorum. Dyspepsia, nausea, vomiting, eructations, and flatulence, with sour and green stools, are constan symptoms, and are either contemporary or occur soon after the appearance of the jaundice. In a large number of cases fever was present, especially in the evening. The period after birth at which the cord was tied had no apparent effect. The writer discards the theory that the jaundice is due to disturbance of circulation from closure of the placental circulation, and agrees with Stadelmann that the hæmatogen theory is not tenable. He is of opinion that the cause is a gastro-intestinal catarrh caused by the irritation of the first food, which is often of an unsuitable character. The catarrh extends into the duct, which thus becomes blocked. Boys seem to him to be rather more common victims of the disease than girls.

Cholera Statistics at the Moabit Hospital.

Professor Renvers, reporting[6] on cholera in the Moabit Hospital, Berlin, says that from Aug. 23rd to Nov. 21st, 1893, 122 cases were taken in as suspicious cases. He divides the cases into four groups: (1) those in which the comma bacillus was found in the stools; (2) those of acute gastro-enteritis without preliminary fever, where the clinical symptoms were undistinguishable from those of cholera, but where either the rice-water stools were remarkably free from bacteria or no predominating form could be detected, though streptococci were often present; (3) similar cases to group 2, but with high fever at first; and (4) those of simple gastro-intestinal catarrh. According to Professor Renvers' experience, there is no sure clinical symptom by which cases of enteritis can be distinguished from cholera; the presence or absence of the comma bacillus is the only certain distinction. A number of examinations of the stools of medical men, attendants, and patients for comma bacillus gave a negative result. These examinations were made whilst cholera cases were in the hospital.

The Action of Tetanus Antitoxine.

Professor Buchner[7] discusses the question whether or not the tetanus antitoxine in blood-serum acts by decomposing the tetanus poison. He comes to the conclusion that this decomposing action does not occur, and that the effect of the antitoxine is rather to be referred to its power of causing immunity. He prepared a mixture of tetanus poison and antitoxine in such proportions that its effect when injected into white mice was *nil*. He then, with a similar mixture, injected guinea-pigs, which are more susceptible to tetanus than are white mice, with the result that they showed distinct symptoms of the disorder; thus proving that in the mixture of poison and antitoxine the former was not decomposed by the latter, and that the two substances do not act on one another, but that both affect separately the animal organism. The same result was obtained when the mixture was allowed to stand some time before use, so as to give the antitoxine an opportunity of decomposing the poison, if that were possible. The explanation of the action of the antitoxine appears to be that it makes insusceptible to the poison all those parts of the organism which, being susceptible to tetanus, have not yet been attacked. Professor Buchner is further of opinion that the antitoxine is not a product of the reaction of the organism to the poison, but is a bacterial product closely allied in composition to the poison. Time, of course, and more practical work with its tabulated results are required to properly test such theories.

Jan. 23rd.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Sydney Benevolent Asylum and Lying-in Hospital.

THE dispute at the Sydney Benevolent Asylum has practically terminated by the board of directors accepting the resignations of the medical staff and appointing the following gentlemen to the vacancies:—Drs. W. H. Crago, J. Foreman, W. S. M'Kay, and J. Graham. It has also been decided to open a new Lying-in Home in Botany-street, Moore-park, at which all midwifery cases will be received, and moved to the main building as soon as convalescent. Miss Grace Robinson (M B, Ch.M. Sydney Univ.) has been appointed resident medical officer at this branch home, and this is the first occasion in Sydney in which a lady has been appointed medical officer to a public institution.

[2] Académie des Sciences, Jan. 16th, 1894.
[3] Deutsche Medicinische Wochenschrift, No. 1.
[4] Ibid., No. 3.
[5] Archiv für Kinderheilkunde, Band xvii., Hefte 1 11.
[6] Deutsche Medicinische Wochenschrift, No. 3.
[7] Berliner Klinische Wochenschrift, No. 4.

In Melbourne Miss Margaret Whyte (M.B. Melb. Univ.) was for some time resident medical officer to the Women's Hospital.

Necessity for a Foundling Hospital in Melbourne.

Following close on the execution of Makins, the "baby farmer," in Sydney for the horrible murders of children entrusted to the care of himself and his wife, a Mrs. Knorr has just been found guilty in Melbourne of the murder of infants whose remains were found buried in the backyards of several houses successively occupied by her in various suburbs. The horrifying details of these crimes have forcibly directed public attention to the necessity of some better means for protecting infant life. In 1890 the many inquests held on "farmed out" infants and the scathing comments of the coroner for the city of Melbourne, Dr. Youl, led to the passing of an Infant Life Protection Act, which provides that houses where infants are boarded out must be registered and regularly inspected by the police, a register of all children received must be kept, and every death reported and an inquest held. The Act, however, was not enforced until February, 1893. During the eight months since then forty-two inquests have been held on boarded-out children under the Act, the usual cause of death being intestinal catarrh from improper feeding. During the same period twenty-five inquests were held on infants abandoned by their mothers soon after birth, the usual cause of death being suffocation, while eighty children who were abandoned, but found alive, have been kept by the State. A very well managed Infant Asylum exists in Melbourne, where mothers with their infants can stay, but the mothers do not care to stay there very long, and the only remedy for the present state of affairs seems to be the establishment of a Foundling Hospital, though public sentiment is strongly opposed to such a proposal.

Deaths under Anæsthetics.

Deaths during the administration of chloroform continue to be very frequent in the colonies. This month two have occurred in Melbourne. One case was at the Alfred Hospital. While a patient was being operated on for fistula the anæsthetist was called away and another practitioner continued the administration. On turning the patient on to his side he suddenly collapsed and died. The other case was at the Melbourne Hospital. A girl, who was about to have a tuberculous knee excised, died before the operation was commenced. The necropsy revealed extensive tuberculous disease of the lungs and a weak, fatty heart. Another and more unusual case, recently the subject of a colonial inquiry, was the sudden death of a female patient in a physician's consulting-rooms after the local application of cocaine. The physician was engaged in applying the galvano-cautery to the base of a nasal polypus, having previously rendered the parts insensitive by a 20 per cent. solution of cocaine, when the patient fainted and, in spite of all the methods of restoration adopted, died. At the post-mortem examination it was found that both lungs were very emphysematous, there was a hæmorrhagic infarct in the right lung, the heart was dilated and thin-walled, weighing 10 oz., and the mitral valve was slightly diseased and obstructed.

Hypnotism in Medicine.

Considerable publicity has recently been given to the practice of hypnotism as a therapeutic agent by a series of questions asked in the Legislative Assembly of New South Wales. Mr. Haynes, M.S.A., drew the attention of the Premier to a statement in the *Australasian Medical Gazette* by Mr. J. M. Creed that in a case where ordinary medical treatment had failed he had successfully resorted to hypnotism. Mr. Haynes asked whether the regulations of the Medical Board permitted such a resort to hypnosis, and, if so, would the board allow the practice of hypnotism by non-registered men? He was informed that the sole duty of the board was to examine certificates and credentials, and when satisfied to register persons as duly qualified medical practitioners.

Porro-Cæsarean Operation for Fibro-myoma, complicating Pregnancy and Preventing Delivery.

Dr. Dunbar Hooper has also recorded a case where he performed the Porro-Cæsarean operation on a woman who had a large fibro-myoma and was pregnant. When seen she had constant vomiting and a temperature of 101° F. In performing the operation the uterine arteries were ligatured and the stump sutured and covered with peritoneum as in Schroder's operation, but instead of being dropped back it was fixed in the lower angle of the abdominal wound. Recovery was satisfactory.

Obituary.

WILLIAM HENRY PLATT, L.R.C.P. EDIN., L.R.C.S.I.

To many of his professional brethren, as to his patients and a troop of friends, it was with a grief beyond words that they heard of the sudden death of this most estimable man on the Thursday preceding Christmas Day. He died at work, without any warning of impending illness. While seeing a patient late in the evening after a hard and anxious day he felt giddy; he was laid down, his speech became thick, there was marked strabismus, in a few minutes he was deeply unconscious, and the end came in somewhat less than three hours, doubtless from hæmorrhage into the pons. Born nine-and-forty years ago in Chester, the son of an old-fashioned apothecary of the time, he began his medical studies in Dublin at so early an age that all his examinations had been passed when he was not more than nineteen, and, being therefore unable to obtain his diploma to practise, he went to the United States and served as a medical officer in the Civil War. Then, no doubt, was developed that military spirit which he showed in after years, more especially in his long and honourable connexion with the Volunteer Medical Staff Corps, of which he was one of the original promoters and, at the time of his death, colonel, with the Volunteer decoration. Some twenty-five years ago he commenced practice in the neighbourhood of Kilburn, where he remained during the rest of his life. If we mistake not, he was the first to establish a non-dispensing practice in this part of London. His practice steadily increased, and with it his influence in the district, so that he was heard of in various schemes of public usefulness, at one time as taking an active part in the foundation of the Kilburn Provident Medical Institute in conjunction with his friend Dr. Morton, at another as the originator of the No. IX. Centre of the St. John Ambulance Association, of which he was made an Honorary Associate. This activity and success had been foreshadowed by the successes of his student career, for the distinction of the Carmichael Prize had fallen to him when he was in Dublin. Thus he was widely known and greatly respected by a vast number of patients and friends, both rich and poor, as one who was ever ready to devote himself to the good of his fellow men. Everyone who saw him behind the veil of professional life recognised at all times the worth and goodness and unselfish kindliness of a man whose love it was to do his duty in the sphere of life to which he had been called. "Multis ille bonis flebilis occidit."

EDWARD FOWLER SCOUGAL, M.A. ABERD., M.D., C.M. EDIN.

THE news of the death of Dr. Scougal of Huddersfield, which occurred on Sunday, the 14th inst., was received by the whole town with the deepest regret. Dr. Scougal was the son of Mr. James Scougal, one of Her Majesty's inspectors of schools for Scotland, and settled in the neighbourhood of Huddersfield soon after completing his classical and medical education. He was widely known in both social and medical capacities, having been president of the Huddersfield Choral Society, for many years secretary of the Huddersfield Medical Society, as well as one of the most skilful supporters of the cricket and football clubs. The members of the Huddersfield Medical Society on the occasion of their meeting on the 15th inst., while conveying to Mrs. Scougal and her family their sympathies, took occasion to express the great respect which they entertained for the high character and worth of their late friend, colleague, and officer. Dr. Scougal, who had suffered from cancer for several months before his early death, was only thirty-eight years of age.

ROLPH LESLIE, M.A., M.D. TORONTO, L.R.C.P. LOND.

FEW men, perhaps, have been more fortunate in making friends, or more successful in keeping them than Dr. Rolph Leslie. Thoughtful, kind-hearted, and generous to a fault, as he was, this need excite no surprise. After graduating at Toronto University in 1876, Dr. Leslie left his home in Canada, and did not return, except for occasional short visits. In 1876 he volunteered for service in the Turkish Army, and

received an appointment as Surgeon-Major. He served in the Turko-Servian War, and later (1877–78) throughout the Russo-Turkish War. After hostilities had ceased he was placed in charge of a hospital in Constantinople during the epidemic of small-pox. Shortly after his return to England he was appointed civil surgeon in connexion with the British force in South Africa, and remained there until the close of the Zulu War. In 1883 he accepted a position offered by the International African Association, and spent upwards of three years on the Lower Congo, where he served under Sir Francis De Winton, who was at that time administrator. On his return he published "Hints to Travellers in the Tropics," embodying his experiences of the more severe and fatal African fevers. In later years his time was spent for the most part in travelling with patients in search of health, and it was whilst engaged in a trip of this kind that he met with his untimely death. Besides numerous testimonials of a private character, Dr. Leslie received, in recognition of his various services, the Russo-Turkish and Zulu War medals, the Order of the Medjidieh, the Order of Leopold, and the Congo Star.

ROYAL COLLEGE OF PHYSICIANS.

THE ordinary comitia of the College was held on the 25th inst., the President, Dr. Russell Reynolds, in the chair.

At the commencement of the proceedings the President proposed, and the Fellows warmly adopted, a vote of thanks to Dr. James Pollock for his services as pro-President, and to Dr. Dickinson for resuming the office of Senior Censor during the time that Dr. Pollock was thus engaged.

The President nominated Dr. Lauder Brunton as Harveian Orator and Dr. T. Barlow as the Bradshaw Lecturer for the present year. He also announced the award of the Swiney Prize to Mr. J. Erskine Holland.

The following gentlemen were admitted to the Membership of the College:—F. E. Batten, M.B. Camb.; E. H. Biddlecombe, M.B. Lond.; G. F. Blacker, M.D. Lond.; T. W. Eden, M.D. Edin; G. F. Johnston, M.B. Edin.; and F. W. Tunnicliffe, M.D. Lond.

Licences were granted to 123 gentlemen who have just passed the examination. Thirteen candidates were granted diplomas in Public Health.

Communications were read from the Royal College of Surgeons of England reporting the proceedings of its Council. The Registrar announced that Lady Clark had offered for the acceptance of the College the medical library of the late Sir Andrew Clark; and the thanks of the College were voted to Lady Clark for her gift.

Thanks were voted to Lady Bowman for the gift of a copy of the works of the late Sir W. Bowman. The thanks of the College were also voted to the subscribers to the Michael Foster Portrait Fund for a photogravure copy of the portrait.

On the nomination of the Council the following Fellows were elected to vacancies on that body: Dr. R. Liveing, Dr. Duffin, Dr. Thorne Thorne, Dr. T. Lauder Brunton, and Dr. F. T. Roberts.

On the nomination of the President Dr. Bastian was elected a curator of the Museum in the room of the late Dr. Wegg, who had served in that capacity for upwards of thirty years.

The question of a suitable memorial to the late Sir Andrew Clark was then introduced by the President; and it was resolved that some memorial should be raised within the College, the nature and details of which were referred to a committee consisting of Sir R. Quain, Sir W. Priestley, Sir Dyce Duckworth, Dr. Pollock, Dr. Blandford, and Dr. C. T. Williams.

On the motion of Sir Dyce Duckworth, seconded by Sir W. Priestley, Dr. Russell Reynolds was appointed a representative of the College on the Council of University College, Bristol, in the place of the late Sir Andrew Clark.

It was resolved that no change should be made in the date of the Harveian dinner.

The Registrar drew attention to the alterations in the by-laws during 1893.

A report of a Committee on the Membership Examination was received and forwarded to the Census Board.

Reports were received from the Representative of the College on the General Medical Council, from the Examiners for the Licence, the Committee of Management, the Laboratories Committee, and the Finance Committee.

Dr. Sims Woodhead was reappointed Director of the Laboratories.

Medical News.

EXAMINING BOARD IN ENGLAND OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the First Examination of the Board in the subjects indicated under the "four years" regulations at the quarterly meeting of the examiners:—

Chemistry and Chemical Physics.—Alfred John Andrew, St. Bartholomew's Hospital; Ernest Orange Balleine, King's College, London; David Leslie Beath, St. Bartholomew's Hospital; Charles Scott Brookhouse, Guy's Hospital; Lee Danby Buxton Cogan, Guy's Hospital; Ernest Phillippe Du Heaume, private study; George Kennion Dury, Owens College, Manchester; Albert Ernest Farndon, St. Mary's Hospital; Charles Franks, private study; John Collins Furness, Charing-cross Hospital; Frank Gower Gardner, Masons College, Birmingham, and St. Bartholomew's Hospital; Egerton Gray, Queen's College, Cork, and London Hospital; Parkinson Osborne Gruber, Cambridge University and St. Bartholomew's Hospital; Thomas Campbell Harmer, London Hospital; Allen Holden, Owens College, Manchester; Augustus Frederick Holman, Cambridge University and St. George's Hospital; Frederick Ernest Hutchinson, private study; Benjamin Isaac, Guy's Hospital; Samuel James Surgeons' Hall, Edinburgh; Charles James Henry Mann, Guy's Hospital; Cecil John Marsh, University College, London; William Ellis Morgan, Charing-cross Hospital; William Percy Baring Newth, St. Thomas's Hospital; William Parkinson, Firth College, Sheffield, and Yorkshire College, Leeds; David Llewellyn Kurtz Prichard, University College, London; Hubert Richard Rice, Masons College, Birmingham, and London Hospital; Arthur Hunt Safford, King's College, London; Charles Vincent Smith, University College, London; Henry Spinks, Owens College, Manchester; Arthur Kenelm Digby Tomkins, Masons College, Birmingham; Stanley Welby, Oxford University, and St. Thomas's Hospital.

Materia Medica and Pharmacy.—George Patrick Ambrose, Westminster Hospital; Willie Netterville Barron, St. Bartholomew's Hospital; Henry Edward Montgomery Baylis, St. Bartholomew's Hospital; Daniel Bowes Beecroft, Charing-cross Hospital; James Bennett, Owens College, Manchester; Charles William Booker, Guy's Hospital; Arthur Brebner, University College, London; Herbert Clapham, Firth College, Sheffield; Alston Arthur Wilson Cook, University College, London; Edward John Ernest Coop, Masons College, Birmingham; Harrold Merriman Cooper, St. George's Hospital; Patrick Joseph Dempsey, Catholic University, Dublin; Ernest James Auberon Dodd, Yorkshire College, Leeds; Henry Noel Nelthorpe Dodd, St. George's Hospital; Arthur James Eastcott, St. George's Hospital; James Eddy, Middlesex Hospital; Arthur Emlyn, University College, London; Charles Franks, private study; Edwin Fryer, Guy's Hospital; Frank Gower Gardner, Masons College, Birmingham and St. Bartholomew's Hospital; Reginald Courtenay Gayer, St. George's Hospital; Charles James Preston Gibbons, London Hospital; Herbert James Godwin, St. Bartholomew's Hospital; Howard Green, Charing-cross Hospital; John Ellis Griffith, St. Bartholomew's Hospital; Hermann Arthur Günther, University College, London; Thomas Tomkinson Harratt, Middlesex Hospital; Alfred William Hayles, King's College, London; Sydney John Haylock, St. Mary's Hospital; James Glover Heath, St. Mary's Hospital; Ernest Gardner Hill, St. Mary's Hospital; Reginald Augustus Lowder Hill, St. Thomas's Hospital; William Ernest Hills, Guy's Hospital; Thomas Hood, St. Bartholomew's Hospital; Walter Kempson Hoskins, St. Bartholomew's Hospital; Hugh Hughes, University College, Liverpool; Frederick Ernest Hutchinson, private study; Samuel James, Surgeons' Hall, Edinburgh; Frederick Arthur Johns, London Hospital; David Gerald Kennard, Westminster Hospital; Ernest George Klumpp, St. Bartholomew's Hospital; Bertram Eustace Laurence, St. Bartholomew's Hospital; Montague Marmion Lowsley, Charing-cross Hospital; Philip Macaulay, Yorkshire College, Leeds; Arnold Rochfort McCullagh, Charing-cross Hospital; Robert Collins Martin, St. George's Hospital; Edwin Maynard, London Hospital; Usher William Newton Miles, King's College, London; Charles Gordon Moffitt, University College, London; Edward Gibson Moon, St. Mary's Hospital; George Edward Palmer, Royal College of Surgeons, Dublin; Arthur Cecil Brigg Pierson, Yorkshire College, Leeds; Ernest George Douglas Pines, University College, London; John Philip Prell, London Hospital; Dooru Charles Rees, Charing-cross Hospital; John Hugh Ripon Robinson, London Hospital; Thomas O'Neill Roe, University College, London; Alfred Edward Seller, London Hospital; Duncan Cecil George Sinclair, St. Mary's Hospital; Oliver Smithson, Yorkshire College, Leeds; John Spencer, Yorkshire College, Leeds; Thomas Spencer, Yorkshire College, Leeds; Henry Spinks, Owens College, Manchester; Percy George Temple, Guy's Hospital; Justin Theodore Vulliamy, St. Thomas's Hospital; Charles Edward Walker, St. George's Hospital; William Walter Walker, Yorkshire College, Leeds; William Watson Walker, St. Mary's Hospital; Augustus Joseph Wernet, Guy's Hospital; Finch White, St. Thomas's Hospital; Stanley Walter Williams, University College, Liverpool; Charles Henry Wilmer, St. Bartholomew's Hospital; George Henry Lionel Wright, University College, Bristol.

Elementary Anatomy and Elementary Physiology.—Arthur Reginald Adams, Guy's Hospital; Walter Rothney Battye, University College, Bristol, and London; William Beckton, St. Bartholomew's Hospital; William Bonse Bennett, University College, Liverpool; George Harold Blasson, Guy's Hospital; Leslie

Bradstock, Masons College, Birmingham; Frank Brickwell, St. Bartholomew's Hospital; William Walton Claridge, Middlesex Hospital; Frederick Consett Dudley, Westminster Hospital; Albert Ernest Elliott, St. Thomas's Hospital; Albert Ernest Farndon, St. Mary's Hospital; Thomas Hudson Gardner, King's College London; Alfred Hugh Gibbon, Edinburgh University and St. Thomas's Hospital; Osborne Parkinson Gruber, Cambridge University and St. Bartholomew's Hospital; Alfred Richard Hoare, St. Thomas's Hospital; Wilfred Anthony Legh Jackson, Masons College, Birmingham; Samuel James, Surgeon's Hall, Edinburgh; Frank Ewart Manning, University College, London; James Michael aloysius Manning, St. George's Hospital; Arthur Edward Maturin, Guy's Hospital; Henry Morris, St. Bartholomew's Hospital; Henry Lawrence Weekes Norrington, University College, Bristol; James Ogilvie, Cambridge University and St. Thomas's Hospital; John Edward Hocking Parsons, Guy's Hospital; John Benjamin August Treusch, Guy's Hospital; William Percival Walsh, Oxford University and Middlesex Hospital; John Herbert Yearsley, St. Thomas's Hospital.

Elementary Anatomy only.—John Kerr Bell, University College, Liverpool; John Micklethwait, Firth College, Sheffield.

Elementary Physiology only.—Benjamin Fearnley Carlile, St. Bartholomew's Hospital; Allen Holden, Owens College, Manchester; Walter Ivan Weldon, St. George's Hospital.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 19th inst. the following degrees were conferred:—

Bachelors of Medicine and Surgery.—Robert Sevestre, Trinity; William Bragg Addison, William Frank Colclough, Gonville and Caius.

Bachelor of Surgery.—Gerald Charles Taylor, Christ's.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates passed in—

Surgery.—C. E. Brooks, Manchester; G. A. Child, St. Thomas's Hospital; H. Harvey, London Hospital; R. L. Jones, University College; F. Morris, Birmingham; W. E. Pain, Guy's Hospital; F. L. F. E. Pfaff, Würzburg; F. Romer, St. George's Hospital.

Medicine, Forensic Medicine, and Midwifery.—P. Best, University College; J. H. Jolley, London Hospital; J. D. Small, Bombay; J. J. Spears, London Hospital; W. H. Symons, St. Bartholomew's Hospital; G. H. Tomlinson, Birmingham.

Medicine and Midwifery.—F. Clarke, St. Bartholomew's Hospital; R. J. Hughes, Durham; G. E. Williams, London Hospital; J. R. M. Richmond, King's College.

Medicine.—E. C. B. Ibotson, Guy's Hospital.

Forensic Medicine and Midwifery.—E. F. Jamison, Belfast; H. Litherland, Manchester; H. Richardson, Manchester.

Forensic Medicine.—A. Marshall, St. Thomas's Hospital; W. H. Reed, King's College.

Midwifery.—C. G. Mathews, St. Bartholomew's Hospital.

To Messrs. Jolley, Marshall, Mathews, Morris, Pain, Pfaff, and Tomlinson was granted the diploma of the Society entitling them to practise Medicine, Surgery and Midwifery, and enabling the holder to compete for medical appointments in the Army, Navy, and India Service, also for Poor-law appointments.

HARVEIAN SOCIETY.—On Thursday, Jan. 18th, the members of the Harveian Society met at the Stafford Rooms for the annual conversazione. The executive had got together a very complete and instructive exhibition of the methods of depicting disease. The exhibition included casts, models, photographs, drawings, examples of the various photo-mechanical processes, the photo-chromoscope (by which objects are reproduced in their natural colours), chromo-lithography, and various other methods of reproducing morbid appearances. There was a large attendance.

PRESENTATIONS.—At the last annual meeting of the Petersham branch of the St. John Ambulance Association, New South Wales, Mr. J. F. McAllister, M.D. Melb., Ch.B., was presented with a silver cake basket and Mr. R. E. Roth, M.R.C.S. Eng., with a combined butter, cheese and biscuit holder, each article bearing the recipient's name and the following inscription:—From his two classes, St. John Ambulance Association, Petersham Branch, Nov. 17th, 1893.—On the occasion of the award of certificates to members of the Heybridge ambulance class on the 17th inst., Dr. G. M. Scott, who had officiated as instructor, was presented with a photograph album bound in Russia leather, containing an inscription setting forth the appreciation by the members of the class of Dr. Scott's untiring efforts to impart knowledge pertaining to ambulance work.

THE death of the Dowager Lady Sidmouth in her hundredth year severs a link that connected the past with the present generation. She was born in 1794, and therefore only missed by four years the chance of seeing and being seen by the celebrated Dr. Anthony Addington, whose grandson she married twenty-six years later. Anthony Addington, Lord Chatham's friend and mouthpiece, the physician who prophesied the return of George III.'s mental malady, and whose name occurs in the Walpole letters and memoirs and in most of the gossipy books of that date, was the father of the first Viscount Sidmouth, Speaker of the House of Commons, President of the Council, and Premier, and though not so widely known a man was probably much superior mentally to his son. The deceased lady was the wife of the first Lord Sidmouth's eldest son, by whom she had twelve children.

FOOTBALL CASUALTY.—During a match on Saturday last, on the Hull Kingston Rovers' ground, a player of the Normanton Club fractured his clavicle.

VACCINATION GRANTS.—Mr. Horatio E. Walker, M.R.C.S., L.S.A., has received the grant of £3 11*s.* for successful vaccination in the central district of the Corwen district.—Mr. Egerton Baines has received the extra grant for successful vaccination in the Henley-on-Thames district.

MEDICAL MAGISTRATES.—Dr. A. E. Permewan of Redruth, and Mr. David Thompson, L.R.C.P., L.R.C.S. Edin., of Launceston, have been placed on the Commission of the Peace for Cornwall.

ST. JOHN AMBULANCE ASSOCIATION.—The central executive committee issued during the twelve months ending Michaelmas, 1893 (the close of the association's financial year) no less than 30,761 "first aid" and "nursing" certificates, being an increase of over 2000 on any previous year.

PROSECUTIONS UNDER THE FACTORY ACTS.—At Marylebone Police Court on Tuesday last, Mr. Lakeman appeared to support prosecutions against employers for keeping their workpeople beyond the time specified in the Act. Two cases were heard, and fines were imposed in one case to the amount of £2 8*s.*, and in the other to £3 10*s.*, each with costs.

MIDLAND COUNTIES HOME FOR INCURABLES.—On the 20th inst. Lord Leigh took the chair at the annual meeting of the friends of this institution, and the secretary read a very favourable report with respect to the beneficial work effected during the twelvemonth, though the financial aspect of the affairs of the Home was somewhat less satisfactory. Besides the usual expenses for maintenance, £2894 had been expended in pensions, and £250 had been carried forward to the building fund. After certain alterations in the rules had been agreed to, Dr. Thursfield referred to a case which had excited some discussion and which had been referred to a committee of investigation, the result of which was to show that the managers were doing their utmost to conduct the affairs of the institution in the best possible way.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—H.R.H. the Duke of Connaught, in his capacity as president of this institution, urges on the benevolent public the special claims of the hospital in consequence of the fire which took place there on the 5th inst. Fortunately, it is remarked, the outbreak was unattended with loss of life or injury to the inmates, but considerable damage was done to the building and its contents, and although this damage is covered by insurance serious expense will have to be incurred to provide sleeping accommodation outside the hospital for the nurses, as well as temporary dormitories for the patients removed from the damaged wards. His Royal Highness accordingly appeals for support in this emergency, the aid sought being rendered the more urgent by the fact that the financial condition of the charity is by no means satisfactory, since the complete reorganisation of the sanitary arrangements has been postponed for want of funds.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BROWNLESS, A. C., M.D. St. And., M.R.C.S., has been appointed Honorary Consulting Physician to St. Vincent's Hospital, Melbourne Victoria, Australia.

DAVIS, NORMAN, M.D., B.S. Dunelm, has been appointed Medical Officer to the Bracknell District and Workhouse of the Easthampton Union, vice Barford, resigned.

DERAVIN, H. A., M.B., Ch.B. Melb., has been appointed House Surgeon to the Inglewood Hospital, Victoria, Australia.

EDWARDS, BRANFORD, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Ipswich District of the Stamford Union, vice G. C. Edwards.

FISCHER, E. C., M.B., C.M. Edin., has been appointed Assistant House Surgeon at the Royal Ophthalmic Hospital, Moorfields, E.C.

FITZGERALD, T. N., F.R.C.S. Irel., has been appointed an Honorary Consulting Surgeon to St. Vincent's Hospital, Melbourne, Victoria, Australia.

FOWLER, C. J., L.D.S.R.C.S., has been appointed Honorary Consulting Surgeon Dentist to the Children's Hospital, Birmingham.

GIBBON, W., L.R.C.P. Irel., L.F.P.S. Glasg., has been appointed, *pro tem.*, Acting Superintendent to the Joint Counties Lunatic Asylum, Carmarthen.

GIBSON, E. ARTHUR, M.B., C.M. Glasg., has been appointed House Surgeon to the Paddington-green Children's Hospital, London.

HOGG, G. H., M.B., C.M. Edin., has been appointed House Surgeon to the Hobart Hospital, Tasmania, vice O'Brien.

JACKSON, C., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the North Sanitary District of the King's Lynn Union.

KENNY, A. L., M.B., Ch.B. Melb., has been appointed a Surgeon to the St. Vincent's Hospital, Melbourne, Victoria, Australia.

LAWRENCE, H. F., M.R.C.P., L.F.C.S. Edin., L.F.P.S. Glasg., has been appointed a Surgeon to the St. Vincent's Hospital, Melbourne, Victoria, Australia.

LOCKING, BENJM., L.R.C.P. Lond., M.R.C.S., has been appointed Public Vaccinator for the district of Palmerston North, New Zealand.

MACINERNEY, J. R., M.D. Durh., L.K.Q.C.P. Irel., L.R.C.S. Irel., has been appointed an Honorary Physician to the St. Vincent's Hospital, Melbourne, Victoria, Australia.

MAINGAY, H. BERTRAM, M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Scarborough Hospital and Dispensary, Scarborough.

MCGEE, WM., L.R.C.S. Irel., L.M., L.K.Q.C.P., has been appointed Health Officer for the shire of Poowong and Jeetho, Victoria, Australia.

MODLIN, J. GIBSON, M.B., B.S. Dunelm, L.S.A. Lond., has been appointed Honorary Surgeon to the Monkwearmouth and Southwick Hospital, Sunderland, vice Blumer, resigned.

MOLONEY, P., M.B. Melb., has been appointed an Honorary Physician to St. Vincent's Hospital, Melbourne, Victoria, Australia.

MONTGOMERIE, H. M., M.D., C.M. Edin., has been reappointed Physician to the West Cornwall Infirmary and Dispensary.

MONTGOMERY, J. R., M.D. Glasg., F.R.C.P. Lond., L.R.C.S. Edin., M.R.C.S., has been reappointed Consulting Physician to the West Cornwall Infirmary and Dispensary.

MORTON, F. W. W., L.R.C.P., L.R.C.S. Edin., has been appointed an Honorary Physician to St. Vincent's Hospital, Melbourne, Victoria, Australia.

NAPIER, T. W. A., M.D. Aberd., C.M., has been reappointed Medical Officer for the Sixth Sanitary District of the Birkenhead Union.

NELLY, J. F., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed an Honorary Surgeon to the St. Vincent's Hospital, Melbourne, Victoria, Australia.

NORTH, THOMAS, M.B. Dub., B.Ch., has been appointed Medical Officer for the High Sanitary District of the Longtown Union.

O'MEEHAN, J. A., L.R.C.S. Irel., has been appointed Surgeon-Captain to the York Infantry Volunteers, Western Australia.

O'SULLIVAN, M. U., L.R.C.P., L.R.C.S. Edin., has been appointed an Honorary Surgeon to the St. Vincent's Hospital, Melbourne, Victoria, Australia.

PARKER, CHAS., M.B., C.M. Edin., has been appointed House Surgeon to the Launceston Hospital, Tasmania.

ROBERTSHAW, WALTER M., M.B., C.M. Edin., has been appointed Medical Officer of Health to the Stocksbridge Local Board, Yorkshire.

STEPHENS, WILLIAM J., M.R.C.S., L.R.C.P. Lond., has been appointed Second Assistant Resident Surgeon to the General Dispensary, Nottingham.

STIRLING, R. A., M.B., Ch.B. Melb., L.R.C.P., L.R.C.S. Edin., has been appointed a Surgeon to the St. Vincent's Hospital, Melbourne, Victoria, Australia.

SYME, G. A., M.B., Ch.B. Melb., F.R.C.S. Eng., has been appointed an Honorary Surgeon to the St. Vincent's Hospital, Melbourne, Victoria, Australia.

SYMONS, JOHN, M.R.C.S., has been reappointed Surgeon to the West Cornwall Infirmary and Dispensary.

THOMSON, JOHN, M.B., Ch.M. Edin., has been appointed Chief Medical Officer in Queensland to the Equitable Life Assurance Society of New York.

TORRANCE, JAS., M.B., B.S. Univ. New Zealand, has been appointed a Public Vaccinator for the district of Campbelltown, New Zealand.

WATERHOUSE, HERBERT F., M.D., C.M. Edin., F.R.C.S. Eng., has been appointed Surgeon-in-Charge of the Aural Department, Charing-cross Hospital.

WELCH, J. B., M.B. Lond., M.R.C.S., has been appointed Honorary Consulting Physician to the Children's Hospital, Birmingham.

WRAY, C. J. H., L.R.C.P., L.R.C.S. Edin., has been appointed Visiting Surgeon to the Reserve set apart for an Aboriginal Mission on Stradbroke Island, Queensland.

WYLIE, R. J., M.B., C.M. Glasg., has been appointed Medical Officer for the Third Sanitary District of the Hertford Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ALNWICK INFIRMARY.—House Surgeon, unmarried. Salary £120 per annum, with furnished apartments, attendance, coals, and gas, but without board. Applications to the Hon. Sec., 16, Bondgate Without, Alnwick.

AXMINSTER UNION.—Medical Officer for each of the following districts, at the undermentioned annual salaries, which will include the costs of drugs, &c.—viz.: Dalwood; salary, £12 8s. 4d.—Kilmington; salary, £12 8s. 4d.—Membury; salary, £22 13s. 4d.; and Stockland; salary, £25 6s. 8d. Applications to the Clerk, Axminster.

BRIGHTON THROAT AND EAR HOSPITAL, 23, Queen's-road, Brighton.—Non-resident House Surgeon. Salary at the rate of £52 per annum.

DARLINGTON HOSPITAL AND DISPENSARY.—House Surgeon, unmarried. Salary £100 per annum, with board and lodging.

DENTAL HOSPITAL OF LONDON, Leicester-square.—Assistant Dental Surgeon.

GREENWICH UNION INFIRMARY.—Second Assistant Medical Officer, unmarried. Salary £80 per annum, with board, lodging, washing, and attendance in the Infirmary.—Applications to the Clerk to the Guardians, Union Offices, Greenwich.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—Assistant House Surgeon (non-resident) for six months. Salary, £20.

KILBURN, MAIDA VALE, AND ST JOHN'S-WOOD GENERAL DISPENSARY.—Vacancy in the Board of the Hon. Medical Staff. Applications to the Secretary, 13, Kilburn Park-road, N.W.

MANCHESTER INSTITUTION FOR DISEASES OF THE EAR.—Honorary Assistant Surgeon.

OWENS COLLEGE, Manchester.—Professorship of Zoology. Apply to the Registrar.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMAN'S INFIRMARY.—Medical Officer, unmarried. Salary £120 per year (£10 allowed for substitute during annual holiday), with furnished apartments, gas, firing, and attendance.

SALFORD ROYAL HOSPITAL.—House Surgeon. Salary £100 per annum, with board and residence.

WEST DERBY UNION.—Resident Medical Officer for the Workhouse at Walton-on-the-Hill. Salary £100 per annum and first-class rations and apartments. Applications to the Union Clerk, Brougham-terrace, Liverpool.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—Lecturer on Bacteriology. Particulars obtained from the Dean, Mr. Spencer.

WHITECHAPEL UNION DISPENSARY.—Assistant Medical Dispenser at the Whitechapel Union Dispensary, Thomas-street, Whitechapel. Salary £90 per annum, increasing £5 yearly to £100 per annum. Applications to the Clerk to the Guardians, Union Offices, Baker's-row, Whitechapel, E.

Births, Marriages and Deaths.

BIRTHS.

ARCHER.—On Jan. 23rd, at Foregate-street, Chester, the wife of Arthur M. Archer, B.A., M.D., of a son.

BODILLY.—On Jan. 18th, at Woodbury High-road, South Woodford, Essex, the wife of Reginald Thomas Hacker Bodilly, L.R.C.P. Lond., M.R.C.S., of a son.

HAMLEN-WILLIAMS.—On Jan. 20th, at Hyde Park-court, Albert-gate, S.W., the wife of T. R. Hamlen-Williams, M.R.C.S., L.R.C.P., Verlands, Cowbridge, Glam., of a son.

HEARNDEN.—On Jan. 15th, at Leatherhead, the wife of Walter C. Hearnden, M.R.C.S., of a son.

PETERS.—On Jan. 5th, at Midhurst, the wife of Albert E. Peters, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES

ANDERSON—COBBOLD.—On Jan. 18th, at the Pro-Cathedral, Kensington, Charles Macdonell Anderson, M.B., C.M. Edin., M.R.C.S.E., and L.R.C.P. Lond., youngest son of the late Colonel J. C. Anderson, R.E., C.S.I., to Maud Chevallier, elder daughter of H. Chevallier Cobbold, Esq., of Kensington.

BARKER—HULKE.—On Jan. 18th, at St. John Baptist's, Kensington, John Collier Barker, M.R.C.S., L.R.C.P., of Elmhurst, Hampton-hill, Middlesex, to Mabel Backhouse, fourth daughter of the late F. T. Hulke, M.B. Lond., of Deal.

BROWN—HOLTTUM.—On Jan. 17th, at the Church of St. Nicholas-at-Wade, Surgeon-Captain E. Harold Brown, M.D., Indian Medical Service, Bengal, to Maud Bedford, only daughter of G. B. Holttum, Esq., of Evernden House, St. Nicholas-at-Wade, Birchington, Thanet.

COATES—MILNE.—On Jan. 17th, at the Parish Church, Merton, S.W., M. Coates, M.D., F.R.C.S., Deputy-Inspector-General of Hospitals, R.N., retired, to Emily, eldest daughter of the late Thomas Milne, of Newlands, Merton park, S.W.

GWYNNE-HUGHES—MANDY.—On Nov. 6th, 1893, at St. Paul's Church, Sydney, New South Wales, by the Rev. B. Boyce Devereux Gwynne-Hughes, L.R.C.P. and L.R.C.S. Edin., City Health Officer, Sydney, and son of the late Rev. R. J. Gwynne Hughes, M.A. Oxon., Tregib, South Wales, to Isabel, youngest daughter of the late Henry Charles Mandy, Esq., Solicitor, Richmond-on-Thames, England.

METCALFE—STEINTHAL.—On Jan. 17th, at St. Mark's, Bradford, James Metcalfe, L.R.C.P., L.R.C.S. Edin., Frizinghall, to Marguerite Henriette, only daughter of Bodo Steinthal, Bradford.

PADDON—FIELD.—On Jan. 18th, at St. Peter's Church, Stockton-on-Tees, George Paddon, L.R.C.P. Lond., M.R.C.S. (late of Llanddulas, N. Wales), to Mary Sadler Field, seventh daughter of Mrs. John Field, of Hartburn, Stockton-on-Tees.

WYNCOLL—DORMAN.—On Jan. 23rd, at St. Paul's, Cheltenham, by the Rev. G. Philips Pearce, M.A., J. W. Wyncoll, M.B., C.M. Edin., of Buckfastleigh, South Devon, to Emily Jane Dorman, of Clarence-square, Pittville, Cheltenham.

DEATHS.

DAVIDSON.—On Jan. 23rd, at Uxbridge, Anne Aglionby, wife of John Davidson, M.B. Lond., aged 37.

LEECH.—On Jan. 18th last, at Broseley, Salop, of apoplexy, Arthur Herbert Leech, M.R.C.S. Eng. and L.S.A. Lond., late of Woolpit, Suffolk, aged 34 years.

OLIVER.—On Jan. 23rd, at 2, Kingsland road, N.E., "Lulie," the infant daughter and only child of Hewitt and Genie Oliver, aged 13 months.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, January 25th 1894.

	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 19	29·93	W.	41	40	72	52	39	..	Hazy
" 20	29·55	S.W.	49	47	78	52	40	0·09	Cloudy
" 21	29·94	S.W.	45	43	59	50	42	0·05	Cloudy
" 22	29·61	S.W.	47	46	52	48	44		Overcast
" 23	29·75	N.	37	36	63	42	36	0·37	Bright
" 24	30·21	S.W.	29		55	47	28		Foggy
" 25	29·89	S.W.	47	47	52	48	29	0·06	Raining

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.) St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

TUESDAY.—London (2 P.M.), (St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), Great Northern Central (2.30 P.M.), King's College (1 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Great Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Chelsea (2 P.M.), Soho-sq. (2 P.M.), North West London (2 P.M.)

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Frederick Treves: Peritonitis. (First Lettsomian Lecture.)

THURSDAY.—HARVEIAN SOCIETY.—8.30 P.M. Dr. W. J. Gow: Eight Cases of Vaginal Hysterectomy for Cancer.—Dr. W. R. Dakin: Modern Methods of Treating Post-partum Hæmorrhage.

FRIDAY.—WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital).—8 P.M. Pathological specimens:—Dr. Clement Lucas: Perforated Gastric Ulcer.—Mr. J. R. Lunn: (1) Case of Appendicitis; (2) Growth of Pancreas ulcerated into Stomach, Fatal Melæna; (3) Perforation of Sigmoid Flexure, Peritonitis and Sudden Death. Papers:—Mr. Alban Doran: The Feeding of Patients after Abdominal Section.—Mr. Lenthal Cheatle: Complications in certain Ear Diseases and their Treatment.

WEST KENT MEDICO-CHIRURGICAL SOCIETY (Miller Hospital, Greenwich).—8 P.M. Dr. Bantock: On the Diagnosis of Abdominal Tumours and Intumescence.

LECTURES AND ADDRESSES.

MONDAY.—LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields, 1 P.M., Mr. W. Lang: Conjunctival Affections.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. E. Woakes: Nasal Neuroses.—Bacteriological Laboratory, King's College, 3 P.M., Prof. Crookshank and Dr. Hewlett: Anthrax and Malignant Œdema.

THROAT HOSPITAL (Golden-sq., W.).—5 P.M. Dr. J. W. Bond: Goitre.

ST. JOHN'S HOSPITAL FOR SKIN DISEASES (Leicester-sq., W.C.).—6 P.M. Dr. Morgan Dockrell: The Erythemata.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 4 P.M., Dr. Hyslop: Delusional Insanity, Paranoia.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: Locomotion and Fixation in Plants and Animals.

WEDNESDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Dr. Green: Bronchitis and Emphysema. Royal London Ophthalmic Hospital, Moorfields, 3 P.M., Mr. A. Q. Silcock: Myopia.—Hospital for Skin Diseases, Blackfriars, 1 P.M., Dr. Payne: The Treatment of Eczema.

THROAT HOSPITAL (Golden-sq., W.).—5 P.M. Dr. Greville MacDonald: Subjective Symptoms of Throat Disease.

WEST LONDON HOSPITAL (Hammersmith, W.).—5 P.M. Mr. Keetley: Anchyloses and Stiff Joints. (Post graduate Course.)

THURSDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st., 3.30 P.M., Dr. Barlow: Cases in the Wards. National Hospital for Paralysed, Bloomsbury, 2 P.M., Dr. Buzzard: Cases in the Hospital.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Mr. Thomas Bryant: Cases in the Wards.

FRIDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Dr. Green: Cases in the Wards.

SATURDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Corner: Stupor, Catalepsy, Katatonia, Dementia.

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Publisher."*

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IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

THE PARACELSUS LIBRARY.

SOME of our readers may like to have their attention drawn to the Bibliography of the Paracelsus Library of the late E. Schubert, M.D., of Frankfurt-am-Main; also his selection of works on Alchemy, now on sale by W. Wesley and Son, Essex-street, Strand, London. The library contains 194 volumes or editions of the writings of Paracelsus, as well as 548 works the contents of which deal chiefly or partly with the characteristics and features of the time in which he lived. Dr. Schubert appears to have devoted a large part of his life to the accumulation of manuscripts and excerpts bearing on the researches of Paracelsus, with a view to the future publication of the material he had thus collected.

B. S. (Reading).—Application for information should be made to the Secretary of the Post Office.

W. C. R.—"The Registrar," Welsh University, Cardiff.

NURSING LECTURES.

To the Editors of THE LANCET.

SIRS,—Will any medical man who has organised lectures to nurses kindly inform the writer what paraphernalia are requisite or desirable and which are the best sets of diagrams, plates, &c. to procure; also the most suitable form of mannikin; also enumerate those books which be found most suitable for a reference library for the nurses (to the number of twenty-five or thirty). Any hints will be most thankfully received. Yours faithfully,

Jan. 22nd, 1894. LECTURER IN EMBRYO.

THE SCOTCH FORM OF OATH.

Medicus.—A person can demand to be sworn in the Scotch form—with uplifted hand—instead of kissing the book. The Act is applicable to all courts, and no one, not even a judge, has a right to question the witness as to his reason for desiring to take the oath in the manner mentioned.

Mr. J. Jones should consult a medical practitioner.

"THE TITLE OF 'DR.'"

A Fourth-year Student, Undergraduate of Durham, writing on this subject, says that "'M.R.C.S. and L.R.C.P.' would find, if he were an aspirant for something higher than the 'Conjoint,' that he would have to be not only better read in professional subjects, but in the Arts, even for the Durham degree, which he would appear to disparage, the second examination for a degree being far more difficult than the London Conjoint, and accepted by them in lieu ...It would surprise him to know perhaps that the Oxford degree is not so difficult as the Durham, and certainly not so stiff as the Victoria or the Royal Irish....The various degrees might be subjected to analysis, and in that table the London and the Royal Irish would head the list for difficulty, and the 'Conjoint' would not find a place in the list at all. It is a diploma and not a degree; and, therefore, cannot take precedence."

Mr. M. Wedderspoon.—We described the apparatus as we found it, and the results were good. Our correspondent should communicate with the inventor.

Dr. R. R. Rentoul.—The subject is no doubt of great importance, but the paper dealing with it should have reached us at an earlier date.

Mr. W. A. Comber.—We do not recommend practitioners.

SHOULD MEDICAL OFFICERS OF HEALTH VISIT NOTIFIED CASES?

To the Editors of THE LANCET.

SIRS,—In replying to your correspondent, Mr. Welch, in THE LANCET of last week, as on several previous occasions, upon the above subject, you express a very decided opinion that a medical officer of health exceeds his duty by visiting cases of infectious disease notified in his district. It is undoubtedly a most unpleasant and responsible duty for any medical man to have to perform, and I shall therefore be glad to know how your opinion can be reconciled with the General Order of the Local Government Board of Dec. 8th, 1891, Article 18 of which deals with the duties of the medical officer of health, paragraph 6 providing as follows:—"On receiving information of the outbreak of any dangerous infectious disease within his district he shall visit without delay the spot where the outbreak has occurred and inquire into the causes and circumstances of such outbreak; and in case he is not satisfied that all due precautions are being taken he shall advise the persons competent to act as to the measures which may appear to him to be required to prevent the extension of the disease, and shall take such measures for the prevention of disease as he is legally authorised to take under any statute in force in the district or by any resolution of sanitary authority." I am, Sirs, yours truly,

Jan. 23rd, 1894. M.O.H.

*** We have nothing to alter or to add to our remarks on this subject last week. There is nothing in the General Order of the Local Government Board to empower the medical officer of health to go behind the notification of the practitioner in attendance. Neither the Board nor the medical officer of health can affect the responsibility of the practitioner, who is of course at liberty to take any means he pleases in doubtful cases of confirming his diagnosis.—ED. L.

"THE CABLE NEWSPAPER."—HEALTH COLUMN.

THE cutting enclosed cannot be approved as far as regards the position of the medical man. It is not professional for a practitioner to answer patients through a newspaper, and we venture to think that the practitioner in question in this case will, on reflection, agree with us.

Mr. R. B. Lowndes (Cheltenham).—The lad must first pass a preliminary examination in arts, and then enter at a medical school, pass his professional examinations, and an additional special competitive examination for either the army or navy. The school fees would be about £140 or £150, and the examination fees about £40 more. The cost of living for five years must also be taken into consideration. There are entrance scholarships at all the medical schools.

DEATH CERTIFICATES.

Mr. C. W. Dean.—A medical man is not obliged to give a certificate of death if he has reason to doubt the cause of death, but it is a professional duty either to give a certificate or to state his grounds to the coroner for declining to do so. If the death was not from natural causes he must refuse a certificate.

Mr. W. H. Waterfield.—Our correspondent was quite right in refusing to give a death certificate, and, in fact, ought not to have done so. It is quite legal and professionally ethical for a medical man to give a certificate with the sanction of the coroner even if he has not seen the deceased for several months prior to the death. At the same time, we are of opinion that it is better in such cases that an inquest should be held.

"DEATH IN THE POT."

THE Italian Office of Hygiene has been laudably active in seizing and sequestrating articles of food unfit for human consumption—indeed, often of so deleterious a character as to be downright poisons. In Rome, for the year 1893 just ended, its report announces that no fewer than 206 043 kilogrammes of such articles were impounded and destroyed. Mushrooms, so large a component of Italian *cuisine*, were examined to the amount of 82,427 kilogrammes; of these, in the fresh state, 1831 kilogrammes were destroyed because they were "guasti" (spoiled), and 85 kilogrammes were also destroyed because they were "venefici" (poisonous); while 651 kilogrammes of dry mushrooms were destroyed, also because they were "venefici." Again, 41,065 shops and stores were officially visited, and of these 103 were found to have contravened the sanitary law against the sale of unfit food, 1098 were convicted of a like offence under the municipal enactments, and 311 were condemned on account of the insanitary state of the premises injuriously affecting the alimentary substances kept in stock. At the railway terminus the "ufficio sanitario" attached to that service destroyed 27,601 kilogrammes of various kinds of edibles; there were executed 228 microscopic analyses of butchers' meat, and bones, hides, and fats were inspected on 335 different occasions. The hygienic operations performed in connexion with the alimentary goods traffic in the course of the past year were not less than 161,724. At the municipal chemical laboratory 249 analyses were made of alimentary substances, in all cases with a favourable result; but in 81 other instances adulteration was detected. At the Ripa Grande, the landing-place on the right bank of the Tiber where wine, mainly from Sicily, is consigned to the Roman vintners, the "ufficio chimico" performed 3772 chemical analyses without detecting any deleterious adjunct to the various brands; but in other cases, to the number of 359, plaster of Paris was found to have been used as an adulterant. This activity on the part of the Roman Hygienic Board is, as we have said, laudable, but we share the feeling of the *Diritto*, a leading journal of the city that the names of the contravenors of the law should be published. In this way a stop would be put more speedily, as well as effectively, to the sale of "alimentary poisons."

"ANTIPYRINE."

To the Editors of THE LANCET.

SIRS,—Your correspondent "H. E. G." has called attention to one of the "incompatibles" of antipyrine. It may, perhaps, be of use to some of your readers to give a fuller list of those substances which cannot be prescribed with that useful drug, a list taken from one of the pamphlets issued by the Farbwerke vorm. Meister Lucius and Brüning, and distributed in this country by Messrs. Burroughs, Wellcome, and Co. Antipyrine must not be ordered with carbolic, hydrocyanic, gallic, tannic, or nitrous acids; alumen; chloral and butyl-chloral hydrates; iron, mercury, and arsenic; iodine, iodides, and nitrites; sodium bicarbonate; and such astringent infusions, tinctures, or decoctions as contain tannin. I have also been looking for some answer to "Agrhma," who asked whether Himrod's powder would by its daily use affect the heart. Sir W. Broadbent in the Lumleian Lectures on Structural Diseases of the Heart delivered in 1891 refers to the matter (*vide* THE LANCET, March 21st, 1891).

I am, SIRS, yours truly,

Jan. 22nd, 1894. M.B. OXON.

ERRATUM.—In Mr. Alworth Merewether's letter on "Erythema Nodosum in the Male Adult" (THE LANCET, Jan. 20th, 1894, p. 179, sixteenth line from top of second column) for "red lotion" read *lead* lotion.

COMMUNICATIONS not noticed in our present issue shall receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Southampton Times, Newcastle Daily Leader, South Durham Mercury, Liverpool Courier, Dundee Courier, Portsmouth Evening Mail, Hampshire Independent, Scarborough Post, Irish Times, Daylight, Yorkshire Post, Christian Commonwealth, Leeds Mercury, Rochdale Observer, Bury Times, Sanitary Record, Local Government Chronicle, West Middlesex Standard, City Press, Reading Mercury, Southampton Observer, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Scotsman, Bristol Mercury, Liverpool Daily Post, Rochdale Times, Morning Cable, Western Morning News, Essex County Chronicle, Surrey Advertiser, West Middlesex Advertiser, Local Government Journal, Australasian Medical Gazette, Builder, Empire (Toronto), News, Architect, Cheltenham Examiner, Cheshire Observer, Scottish Leader, Bognor Observer, Bath Chronicle, Surrey Mirror, Hereford Times, Flintshire Observer, Folkestone Express, Evening News and Post, Weekly Sun, Yorkshire Evening Post, Fife Herald, Arbroath Herald, Clifton Chronicle, Loughborough Monitor, Daily News (Trinidad), Liverpool Mercury, &c., &c.*

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